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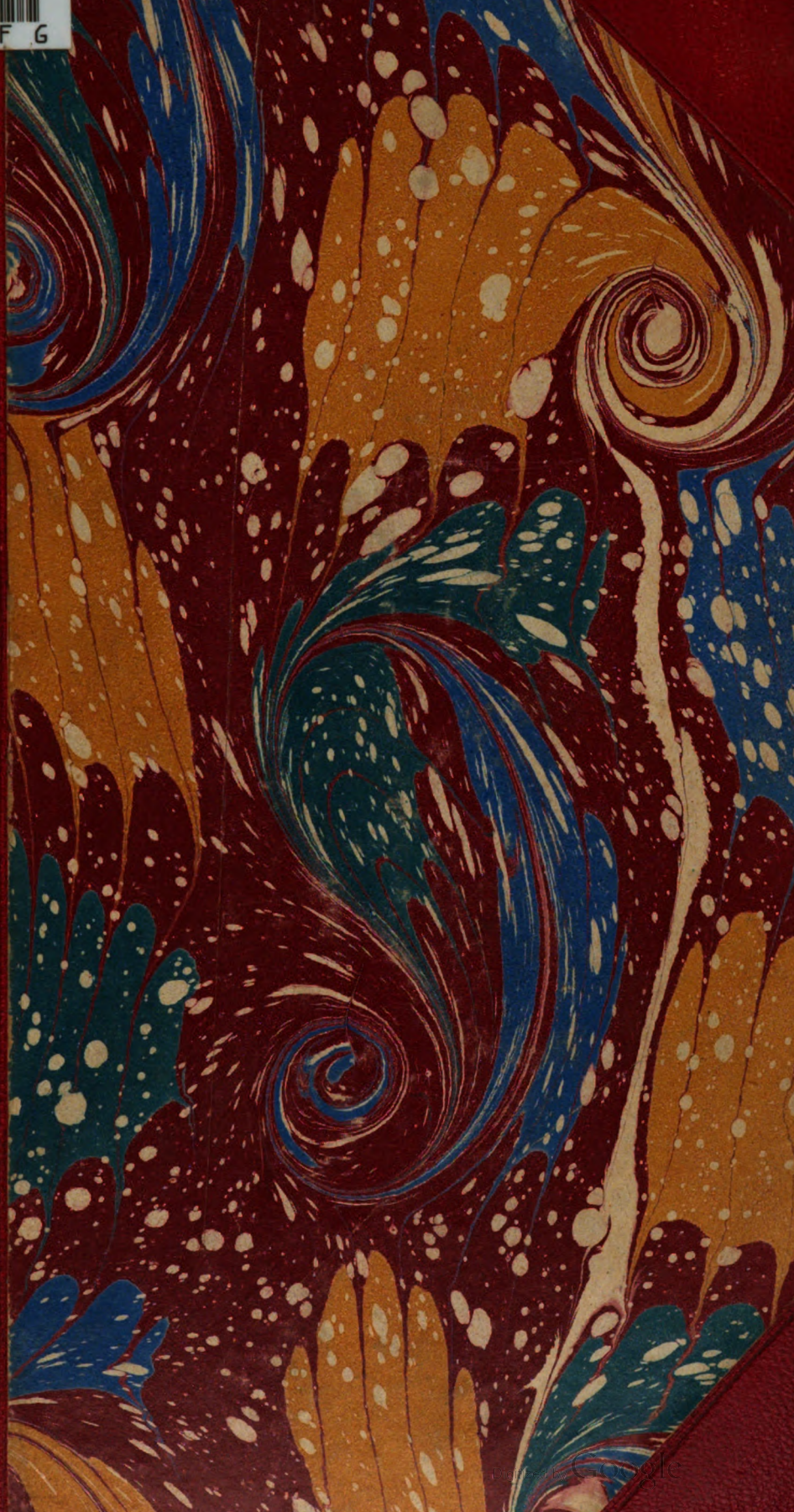
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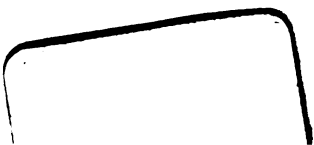
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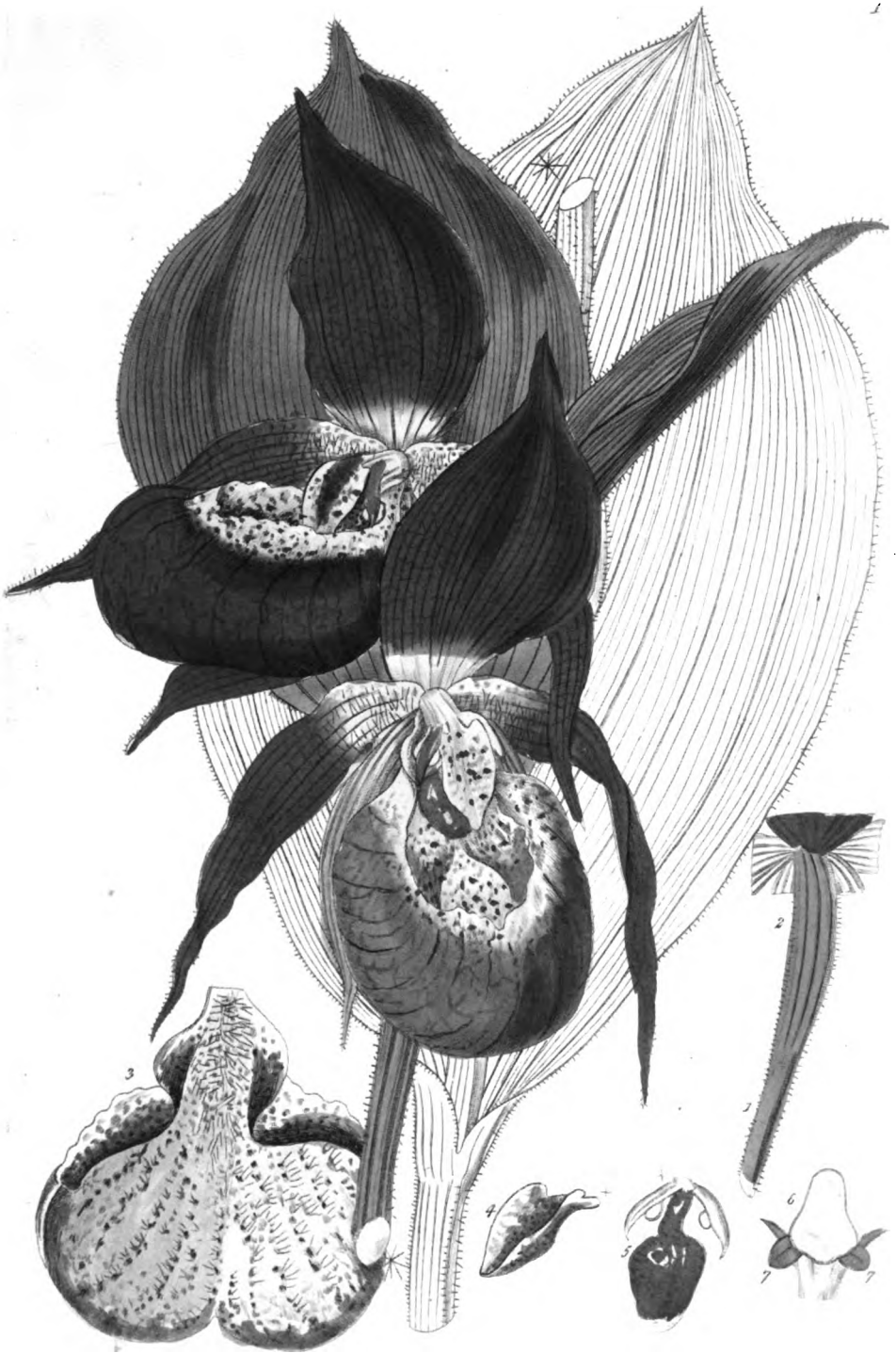
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1/2 inch 24

Bot. by Robert Brown. Black Kallian, June 1822.

Widdell, 18

CYPRIPEDIUM ventricosum.

Inflated-flowered Ladies'-Slipper.

Linnean Class and Order. GYNANDRIA DIANDRIA.

Natural Order. ORCHIDÆ. *Brown prodr.* 309.

Sect. VI. CYPRIPEDIÆ. *Stamina* 2 antherifera.

CYPRIPEDIUM. *Perianthium* 4-phyllum, patens: *foliola* 2 *antica* sæpius connata. *Labellum* ventricosum, inflatum (nunc saccatum.) *Columna* postice terminata lobo petaloideo (stamine sterili,) *antheras* distinguente. *Supra folio* 71. *vol.* 1. *series* 1.

C. ventricosum, caule folioso, foliis lato-ovatis pubescentibus, lobo columnæ sagittato obtuso concavo, labello foliolis perianthii inæqualibus (superioribus ovato-oblongis) breviori antice subfisso.

Cypripedium ventricosum. *Swartz act. holm.* 1800. p. 251. *Willden. sp. pl.* 4. p. 145. *Pers. syn.* 2. p. 525. *Spreng. syst.* 3. p. 745. *Gmel. sib.* 1. p. 3. t. 1. f. 2.

Stem erect, slightly angular, leafy, thickly clothed with a short soft pubescence. *Leaves* three, on our specimens, broadly ovate, acute, clasping the stem at the base, strongly nerved with numerous longitudinal nerves, of a pale green, thickly clothed on both sides with short hairs, and fringed with the same round the edges. *Flowers* 2 in our specimen, each produced in the axils of the upper leaves, large, of a reddish purple. *Peduncles* about the length of the ovary, slightly angular, thickly clothed with short hairs. *Ovary* angular, slightly nodding, clothed with the same short hairs as the footstalk. *Leaflets of the Perianthium* 4, unequal in size, a little longer than the labellum, purple: upper one ovate, tapering to a slender point, 5-nerved, veined between the nerves, pubescent outside: two side ones narrow, lanceolate or linearly lanceolate, taper-pointed, bearded inside near the base, smooth on the outside: lower one ovate, taper-pointed, 5-nerved and veined, pubescent outside. *Labellum* very large, and inflated, of a brilliant purple, much veined, slightly crenulate round the mouth, where it is very slightly cloven, the mouth edged with pure white, bearded in the throat with a large tuft of white hairs, the mouth inside of an elegant mottled purple; lower down white, spotted with numerous purple spots, that are clothed with purple hairs. *Lobe of the Column* arrow-shaped, very hollow or concave on the outside, bluntish at the point,

white, more or less stained, and spotted with a red purple. *Style* smooth, purple; *middle lobe* very thick and fleshy, rhomboid, bluntly rounded, hollow on each side above, flat underneath: *side lobes* narrow, linear, acute, the points bent slightly inwards, extending beyond the anthers. *Anthers* 2, nearly orbicular, inserted on the inside of the side lobes of the style. *Pollen-masses* 2, yellow, covered with a glutinous matter.

Our drawing of this very rare and handsome plant was taken from a fine specimen that flowered this Spring in the collection of Sir George Thomas Staunton, Bart. at Leigh Park, Hants, and was by him sent to Mr. Lambert, in whose collection the specimen is now preserved; for the following account we are indebted to Mr. George Hall, gardener at Leigh Park, who observes, that "it was flowered in Sir George's conservatory, and was sent to him by Mr. I. Smirnov, of the Russian embassy, October 2d, 1828."

"It is a herbaceous perennial, dwarf and erect in its growth, fibrous rooting, and has in its dormant state all the characteristics of the Lily of the valley; indeed, the resemblance is so great, that it is difficult to distinguish between them before the foliage has made its appearance."

"It was potted in peat and loam, and placed in a frame, and treated as other half hardy plants; about Christmas it was taken into the Greenhouse, and placed on a shelf near the glass, then the flower-bud first made its appearance; but as it grew rather delicate and slender there, it was removed to the conservatory, where it arrived to full perfection."

"It is apparently quite hardy, and might do well out of doors in a south border, care being taken as to soil, and protection in very severe weather."

We agree with Mr. Hall in believing it to be quite hardy, as it is a native of the eastern part of Siberia, but we would recommend its being planted in a north, rather than a south border, as it would not be so liable to be hurt by cold, in growing too soon in Spring; the plants of this genus are also fond of a shady situation, generally growing in woods under the shade of trees, and their roots running amongst the decayed leaves that have been accumulating for years, and form a bed of light soil; this should be imitated as much as possible in their cultivation. We believe the present species has never before been seen in this country, either in a living state, or as specimens; it is not in Pallas's herbarium, now in Mr. Lambert's collection, though there are several specimens of *C. guttatum* and *C. macranthos*, so that Sir George has been particularly fortunate in flowering it so strong and perfect.

Cypripedium is derived from *κυπρίδις*, Venus, and *πέδηλον*, a shoe, the English appellation is, therefore, Ladies' Slipper.



1. Peduncle. 2. Ovarium, showing in the back view where it is attached to the perianthium. 3. Labelium split open, showing the spots on the inside, tipped with purple hairs. 4. Lobe of the Column, in a view to show its hollow surface. 5. Style, front view, showing its large fleshy terminal lobe, and the two side ones to which the anthers are attached. 6. Back view of the same, showing the anthers in front. 7. The two Anthers.



Camellia W. J. B. 1874

Camellia W. J. B. 1874

CAMELLIA japonica var. Colvillii.

Colvill's Carnation-flowered Camellia.

Linnean Class & Order. MONADELPHIA POLYANDRIA.

Natural Order. CAMELLIÆ. *DC. prodr. 1. p. 529.*

CAMELLIA. *Calyx* imbricatus, nempe bracteis sepalisve nonnullis accessoriis cinctus. *Stamina* basi polyadelphia aut monadelphia. *Antheræ* ellipsoideæ. *Capsula* valvis medio septiferis, axim triquetrum liberum post dehiscentiam relinquentibus. *DC. prodr. 1. p. 529.*

C. japonica, foliis ovatis acuminatis acutè serratis, floribus terminalibus subsolitariis. *DC. loc. cit. p. 529.*

Camellia japonica. *Lin. sp. 982. Willden. sp. pl. 3. p. 842. Botan. magaz. 42. Andr. reposit. 559.*

Colvillii, foliis magnis atroviridibus; floribus plenis; petalis carnescentibus punctatis rubro-vittatis.

A handsome upright, branching, evergreen Shrub. *Leaves* large, dark green, smooth, oval, and in general tapering to a slender point, rarely rounded at the point, sharply serrated, the point entire, strongly nerved, the nerves and veins much branched. *Petioles* a little hollowed on the upper side, and rounded underneath, thickened at the base. *Flower* large, very double, and handsomely formed, not unlike a very large Carnation. *Calyx* imbricate: *sepals* roundly ovate, deciduous. *Petals* numerous, outer ones broadest, becoming gradually narrower inwards, those in the centre more or less curled or crumpled, of a handsome blush, spotted with innumerable small red spots, and elegantly striped with various crimson stripes.

Our drawing of this beautiful new variety of *Camellia*, was made from a plant in the collection of Mr. Colvill, at his Nursery in the King's-road, the beginning of April last, where it was then in flower for the first time; it was raised from seed in the year 1824; the seed was procured from a plant of the *Pompone* variety, that we had fertilized with the pollen of the double-striped; the present production is far more beautiful than either of its parents, between which it is nearly intermediate, but the lively stripes on the blush ground give it a very pleasing and neat appearance; it is certainly the finest and most beautiful variety that we have ever yet seen, and will doubtless be procured as soon as possible by all the cultivators of this genus.

As the greater part of the different varieties of this species, bear perfect stigmas, they will therefore produce perfect seeds, if care be taken to procure pollen from a different variety; in doing this, particular care and attention is necessary to procure the stamens from the most double flowers that bear them, and also to consider what two colours would produce the most distinct and beautiful colour, intermediate between the two; several of the sorts that are generally very double, occasionally bear a few perfect anthers; those are the best for fertilizing the others with, as the seeds from them will produce much finer flowers than from those that have been set with the more single sorts; and as the varieties from seed are now become so numerous, if they are not very fine and distinct they will certainly not be worth cultivating, except as stocks to work the finer sorts on.

The Caméllia is not generally so much cultivated as it deserves, though it is very hardy, standing our severest Winters when planted out against a wall or in any sheltered situation, without protection; but being such an early flowering plant, the buds are often much injured and sometimes destroyed, if not covered a little in severe frosty weather; we believe a northern aspect would suit it better than a southern, as it would not be so liable to frequent and sudden thaws in the day and frost at night, which injures plants that are somewhat tender, more than they are injured by not being thawed while the frost lasts; we proved this by several species of *Cistus* the last Winter, those in a south border being all killed, when the same sorts in a north border, which we expected to have seen all destroyed, were scarcely injured in the least, and are now thriving well and coming full in flower.

The Caméllia is also one of the most proper plants for growing in the window of a light room, as it is much more hardy than the *Geranium* tribe, and requires nothing in Winter but to be watered when dry; we have seen plants treated this way flower finer, and continue in flower much longer than those cultivated in the Greenhouse. The best soil to grow them in, is a mixture of loam, peat, and sand, the greatest proportion of the former, and the pots to be well drained, that the wet may pass off readily.

Caméllia was named in honour of George Camellus, a Moravian missionary, who travelled in Asia; he wrote a history of the plants of the Island of Lucon, published in the history of plants by John Ray, 1704.



Ed. Smith Del.

5.1. Ex. E. Smith. Examine. Place. P. L. A. 1819.

Del. Smith.

SATYRIUM coriifolium.

Leather-leaved Satyrium.

Linnean Class and Order. GYNANDRIA MONANDRIA.

Natural Order. ORCHIDÆ. *Brown prodr.* p. 296.

Tribus I. OPHRYDÆ. *Anthera* adnata subterminalis persistens. *Pollinis massæ* e lobulis angulatis elastice cohærentibus; basi affixæ. *Brown Hort. Kew. ed. 2. v. 5. p. 188.*

SATYRIUM. *Perianthium* ringens; foliola 5 antica basi connata. *Labellum* posticum, fornicatum, basi bicalcaratum v. bisaccatum. *Anthera* resupinata. *Stigma* bilabiatum.

S. coriifolium, cornibus subulatis, foliis inferioribus ovatis acutis sub-reflexis coriaceis: margine crenulato-scabris; superioribus vaginæformibus, caule erecto maculato, bracteis oblongis acutis concavis post anthesin reflexis, floribus cernuis, labellum carinatum.

Satyrium coriifolium. *Swartz in act. Stockholm.* 1800. p. 214. *Willden. sp. pl.* 4. p. 54. *Spreng. syst.* 3. p. 695. *Botan. regist. v. 9. t. 703. Buxb. cent.* 3. t. 10.

Satyrium cucullatum. *Lodd. bot. cab. t.* 104. *nec aliorum.*

Diplethrum coriifolium. *Pers. syn.* 2. p. 509.

Root tuberous. *Stem* stout, erect, in our specimen twenty-one inches in height, leafy, smooth, spotted throughout with brownish purple spots. *Leaves* several, sheathing the stem at the base, where they are connected, smooth, acute, of a stiff leather-like substance, the point tipped with a small horny gland or blunt mucro, the margin rough and crenulate with innumerable small cartilaginous teeth, those are strongest towards the base: *lower leaves* ovate, a little reflexed at the points, connate at the base, 9-nerved: those higher up the stem narrower, and surrounding it a good part of their length, spotted near the bottom. *Flowers* very handsome, in a close spike. *Bractes* sessile, oblong, acute, concave, reflexed, and hanging down when the flowers are expanded, erect before they expand. *Ovarium* angular, about the length of the spurs, the angles winged. *Perianthium leaflets* 5, all joined at the base, bright yellow tinged with red, the two side ones largest, lanceolately linear, bluntish, spreading, about the length of the labellum: the front one and two inner ones narrower, linear, the outer one

attenuated a little towards the base, nearly straight. *Labellum* large, inflated, ringent, sharply keeled at the back, the point reflexed, sides bright yellow, the back more or less red; at the base are two subulate spurs, about the length of the ovarium. *Stigma* 2-lipped: upper lip 2-lobed, the lobes spreading, and fringed towards the base: lower lip 3-lobed, the lobes pointed. *Anther* resupinate, 2-lobed. *Pollen-masses* two in each lobe, pedicled and inclosed in a hood: the pedicles each seated on a flat two-lobed scale or gland, fixed on the point of the lower lip of the stigma.

Our drawing of this most beautiful and curious species, was taken from a plant at the Nursery of Mr. Tate, in Sloane Street, who imported it from the Cape of Good Hope, and who observes, that it flowered with him also last year, but much weaker, the plants having increased much in size since then. Mr. Tate has them planted in large pots, in a stiff loamy soil, which, he observes, is very similar to the soil that was about the roots when they arrived from the Cape, and which they thrive in remarkably well; others, that he planted in lighter soil, did not succeed so well: *S. cucullatum* we also observed in flower at Mr. Tate's at the same time, and Mr. Tate has lately introduced numerous other Orchideous plants from the same quarter; those will all thrive well, planted in a warm border in a southern aspect, and to be covered up with mats or straw, or any other light covering in severe frosty weather, but to be always exposed to the air when the weather is mild; or if a brick pit, with lights, be allowed for them, they will answer exceedingly well, the lights to be kept on in very wet or frosty weather, and to be covered up in severe frost; and if some moss were planted between them, we have no doubt but numerous young plants would come up from seeds, the seeds of Orchideæ requiring something to feed on and shade them, as they are all more or less inclined to be parasitical, particularly the seedling plants; a mat can also be spread on the lights of a hot day, when the plants are in flower, to keep the sun from scorching them. We should like to see a collection of those beautiful Orchideous plants, native of the Cape, New Holland, Mexico, Chili, and Peru, cultivated in this manner; and we know no place where it could be done better than at the Nursery of Messrs. Young at Epsom, whose manager, Mr. Penny, is a successful cultivator of Orchideæ, and flowers the British species to double their natural size.

The generic name is derived from *satyrus*, a Satyr; and the genus is readily known from all others, by the two spurs at the base of the labellum.



1. Perianthium, the segments all connected at the base. 2. Labellum, with the two spurs at the base. 3. Ovarium, terminated by the Style front view, showing the anther attached to the lobe of the Stigma. 4. The same, side view. 5. The forked pollen masses detached, each seated on a flat two-lobed scale.



1. *Stamens Det.*

2. 3. *R. Juncus P. nana Planch. Enchiridion 1829*

3. *Radical Det.*

ZEPHYRANTHES carinata.

Keeled-leaved Swamp-Lily.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆ. *Brown prodr. p. 296.*

ZEPHYRANTHES. Scapus cavus. Ovarium suberectum. Flores semipatentes, suberecti: laciniae alternæ dispaes: tubus arctus, angustè infundibuliformis. Stylus declinatus. Stigma trilobum. Filamenta laciniarum basi inserta, divaricata; alterna dispaia, superius sæpius sejunctum. Antheræ infra medium affixæ. Capsula erecta, trivalvis, triloba, trisulca, trilocularis. Semina complanata biseriatim cumolata, testâ nigrâ.—Plantæ Occidentales. Bulbis parvulis ovatis. Foliis linearibus. Scapis 1-2-floris pedunculatis. Spathis in unifloris bilobis, in bifloris bifidis. W. Herbert Botan. magaz. 2537.

Z. carinata, foliis linearibus acutiusculis subfalcatis longitudinaliter striatis subtus obtuse carinatis, spatha basi tubulosa apice tubo perianthii subæquali, antheris elongatis stylo subæqualibus.

Zephyranthes carinata. W. Herbert. Botan. magaz. 2594. Swt. hort. brit. p. 402.

Bulb oval, or turbinate with the smallest end upwards, producing many offsets. *Leaves* from 2 to 4, from 9 inches to a foot in length, linear, ending in rather an acute point, more or less falcate, longitudinally striate, with numerous small veins that are most prominent at the back, which is bluntly keeled, the upper side rather channelled or hollow, of a bright green colour, sometimes tinged with red at the base. *Scape* produced on one side, from 4 to 6 inches in length, hollow, slightly angular, longitudinally striated with numerous veins, more or less red at the base, becoming gradually greener upwards. *Spatha* tubular, red at first, dying off brown, veined, split at the point on one side for the exclusion of the flower, there is also a slit on the other side below the point, but not extending to the apex, point acute, and extending the length of the tube of the flower. *Pedicle* cylindrical, smooth,

about three parts of an inch long. *Ovarium* below the flower, smooth, green. *Flower* about two inches and a half in length, of a bright rosy lilac. *Perianthium* divided into 6 segments about three parts of its length; *tube* green, funnel-form: *segments of the limb* spreading when expanded, but closing at night, elliptic, acute, the three outer ones broadest, and terminated with a sort of callous point; when full blown a little recurved. *Stamens* 6: *filaments* inserted in the base of the segments and decurrent down the tube, smooth, white, tapering to the point: *anthers* very long, about the length of the filaments, and attached to them by their back: *pollen* golden yellow. *Style* smooth, about equal with the anthers. *Stigma* 3-lobed, papillose, white; the lobes fleshy, spreading, slightly recurved at the points.

The present beautiful species is quite hardy, as is most of the other species of this pretty genus; the plants from which our drawing was made, were in full flower in the open border in August last, in the garden of Mrs. Marryatt, at Wimbledon House, Surrey, in whose interesting and extensive collection we observed many other curious and rare plants; amongst them a very singular hybrid species of *Anagallis*, intermediate between *A. fruticosa* and *A. Monelli*, the flowers of a coppery brown colour; it may be named *A. Marryattæ*, in compliment to the Lady in whose collection it was raised; and we agree with M. Decandolle, that such names are the best for hybrid plants.

The present species is a native of Mexico; and was first introduced by Mr. Bullock, who brought it with several other species from that country, and disposed of them to Mr. Tate, of Sloane Street, from whom Mrs. Marryatt received it; it differs from *Z. grandiflora* in the shortness of its pedicle, which in that species is longer than the spathe; we have seen numerous specimens of it in Mr. Lambert's herbarium, all agreeing precisely in that respect. We are informed by the Honourable and Reverend William Herbert, that the leaves figured with *Z. grandiflora* in the Botanical Register, in reality belong to *Z. verecunda*, as he has since flowered an offsett from the identical bulb from which the leaves were drawn.

The generic name is derived from $\zeta\phi\upsilon\rho\omicron\varsigma$, the west wind, and $\alpha\upsilon\theta\omicron\varsigma$, a flower, most of the species being natives of the West India islands.



1. Tube of the Perianthium spread open, showing the insertion of the 6 Stamens, the anthers attached by their back to the filaments. 2. Style, terminated by the 3-lobed fleshy Stigma.



E. Smithii

Pub. by R. Wood, Parsons Place, Fulham.

Weddell's

PRÍMULA pusilla.

American Bird's-eye Primrose.

Linnean Class & Order. PENTANDRIA MONOGYNIA.

Natural Order. PRIMULACEÆ. *Brown prodr.* 1. p. 427.

PRÍMULA. *Flores* subumbellati involucrati. *Calyx* tubulosus persistens 5-dentatus 5-fidisve, angulatus. *Corolla* hypocrateriformis v. infundibuliformis tubus cylindricus, longitudine calycis aut longior, fauce pervia, ut plurimum eglandulosa, ore patulo, limbo quinquelobo: lobis emarginatis. *Stamina* tubo corollæ inclusa. *Stigma* globosum. *Capula* apice 10-dentata polysperma. *Semina* numerosa, subrotunda.

P. pusilla, foliis spathulato-oblongis acutis argute serrato-dentatis basi attenuatis subtus scapoque farinosis, umbellâ multiflorâ erectâ strictâ, involucri foliolis lineari-subulatis carinatis pedicellis subæquantibus, calycibus inflatis acutiusculis, corollæ limbo plano: laciniis obcordatis tubo brevioribus, fauce nuda rugosa.

Primula pusilla. *Goldie in Edinb. phil. journ.* April. 1822. no. 12. p. 322. pl. 11. f. 2. *Hook. ex. flor. t.* 68. *Spreng. syst.* 1. p. 575. *Swot. hort. brit.* p. 330.

A pretty little tufted stemless plant, becoming dormant in Winter, producing numerous offsets at the base. *Leaves* numerous, when young densely clothed with a close white powder on both sides, but as they become older and expanded the powder wears off, or is washed off with the rain from the upper side, by that means they become smooth, and are only white and powdered on the lower side: *lower ones* obovate or oblongly spathulate, acute, and deeply toothed with numerous sharp unequal teeth, very much attenuated towards the base, and entire from below the middle, resembling a foot-stalk, particularly on the upper leaves, which are also narrower, and toothed with shorter teeth. *Scapes* or *flower-stalks* straight, erect, longer than the leaves, densely clothed with a farinaceous powder, tapering a little upwards. *Involucre* of several subulately linear keeled bractes, about the length of the pedicles. *Umbels* many-flowered, growing in a close compact form, nearly level when in full bloom. *Pedicles* erect, farinose. *Calyx* inflated, tapering a little at the base, strongly 5-angular, 5-toothed, clothed with a white mealy powder: teeth close-pressed to the tube of the corolla, more or less

acute. *Corolla* of a bright lilac, tubular; *tube* pale yellow, a little longer than the calyx: *limb* spreading flat, 5-cleft, with a broadish open mouth, slightly rugged round the opening: segments obcordate, notched in the centre, or sometimes three-lobed. *Stamens* 5, inserted in the tube: *filaments* very short; *anthers* slightly sagittate at the base. *Ovarium* large, somewhat flattened, a little powdered. *Style* smooth, included in the tube. *Stigma* a brownish purple head.

Several plants of this handsome little species, were received from Labrador last Autumn, by Mr. William Anderson, Curator of the Apothecaries' Company's Garden at Chelsea, with several other very curious plants. It is nearly related to our common *P. farinosa*, and still nearer to *P. stricta*, but is sufficiently distinct from both; we have no doubt but ours is the same species as that collected by Mr. Goldie in Canada, though some difference appears in the specimens in his figure, from the plants from which our drawing was made; in our plants, which were all precisely alike, the leaves were deeply toothed with long sharp unequal teeth, and the pedicles were not longer than the bractes, agreeing better with the figure at the left of the plate in Mr. Goldie's figure, than with the other, or with Dr. Hooker's; there are now several species of this section of the genus with mealy leaves and scapes, none of them more beautiful than *P. scotica*, first noticed by P. Neal, Esq. of Edinburgh.

Like the other species to which the present plant is related, it succeeds best in peat soil, and requires to be well supplied with water when in a growing state; in the Winter it is quite dormant, the leaves being closed all round each other, so as to give it the appearance of a little bulb; it may either be grown in a peat border, in rock-work, or in small pots, and may be increased by dividing at the root, or by seeds; if by the latter they should be sown as soon as ripe, they will otherwise be a long time in coming up.

Primula is derived from *primus*, first, from the *Primula acaulis*, and some other species, being amongst the first flowers that bloom in Spring.



1. The inflated Calyx. 2. Tube of the Corolla spread open, to show the insertion of the 5 Stamens. 3. Ovarium, terminated by the smooth Style and capitate Stigma.



Chamaecrista

Chamaecrista fasciculata (L.) Greene

Walt.

IBÉRIS carnosa.

Fleshy-leaved Candy-tuft.

Linnean Class & Order. TETRADYNAMIA SILICULOSA.

Natural Order. CRUCIFERÆ. *DC. reg. veg. syst. nat. 2. p. 139.*

Subordo I. PLEURORHIZEÆ. *DC. loc. cit. p. 146.*

Tribus III. THLASPIDÆ seu Pleurorhizæ Angustiseptæ. *Silicula* bilocularis, bivalvis, septo angustissimo lineari; valvis carinatis aut navicularibus. *Semina* ovalia, compressa, sæpè marginata. *Cotyledones* planæ, accumbentes. *DC. loc. cit. p. 372.*

IBERIS. *Calyx* basi æqualis. *Petala* 4 inæqualia, 2 exteriora majora. *Stamina* libera, edentula. *Silicula* valvis carinatis navicularibus depressissima, basi ovata, apice valvis nempè in lobulos productis emarginata, stylo persistente filiformi apiculata, septo interdum bipartibili angustissimo, loculis latere interno axi adnatis, 1-spermis. *Semina* ovata, pendula. *Radicula* ad latus embryonis exterius. *Cotyledones* interius adscendentes, accumbentes.—*Herbæ aut Suffrutices.* *Caules teretes, sæpius glabri, interdum subcarnosi.* *Folia alterna, linearia aut obovata, integra dentata aut pinnatifida, interdum crassiuscula.* *Racemi nunc elongati, nunc per anthesin corymbosi postea elongati, nunc imò post anthesin corymboso-umbellati.* *Pedicelli ebracteati.* *Flores albi aut purpurascens (nunquam lutei), exteriores corymbi magis irregulares, interiores subregulares.* *DC. syst. 2. p. 393.*

I. *carnosa*, basi suffrutescens puberula: ramis patentibus subdecumbentibus, foliis carnosis integerrimis ciliatis: inferioribus obovatis spathulatisve apice rotundatis basi attenuatis: superioribus angustioribus spathulato-linearibus, floribus confertis, stylis elongatis, siliculis corymbosis sinu angusto acuto emarginatis, lobis acutis stylo duplo brevioribus.

Iberis carnosa. *Willd. sp. pl. 3. p. 455. Pers. syn. 2. p. 186. Waldst. et Kit. pl. rar. hung. t. 194. Lapeyr. abr. 369. Spreng. syst. 2. p. 864.*

Iberis spathulata. *Berg. phyt. ic. DC. fl. fr. ed. 3. v. 4. p. 716. Regn. veg. syst. nat. 2. p. 404. Prodr. 1. p. 179.*

Iberis cepezfolia. *Pourr. act. toul. 3. p. 321. non Wulf.*

Iberis rotundifolia. *Lamarck dict. 3. p. 221. non Lin.*

Stems suffrutescent at the base, branching, purple: *branches* spreading, somewhat decumbent, also more or less tinged with purple, striated, smooth, or clothed with a short thin pubescence, but becoming smooth by age, from four to six inches in length in our specimen, all terminated with a crowded corymb of flowers. *Leaves* fleshy, bright green, very variable, at first pubescent and ciliate, but the pubescence wears off, and the lower ones become smooth: *lower ones* obovate and

rounded at the point, attenuated downwards to a very slender base, which has the appearance of a petiole, and is fringed, becoming more spatulate higher up the stem: the *upper ones* linear, but rather broadest at the point, more fringed and pubescent. *Peduncles* about the length of, or rather longer than the upper leaves, striate, and pubescent. *Flowers* white, or tinged with blush, in a close, crowded corymb. *Pedicels* thickly clothed with short stiff hairs, about twice the length of the calyx. *Calyx* of 4 sepals, that are obovate, and rounded, concave, keeled at the back, where they are clothed with long stiff hairs, the margins membranaceous, and tinged with blush. *Petals* 4, unequal, mostly so on the outer flowers, the outer ones two or three times longer than the inner ones, obovate, white, or more or less tinged with blush. *Stamens* 6, two rather shorter than the others: *anthers* a little exserted: *filaments* roughish, and attached to the back of the anthers. *Ovarium* smooth, terminated by a long smooth exserted Style, and capitate two-lobed Stigma. *Pod* ovate, rounded at the base, emarginate, the sinus acute, the lobes elongated, acute, scarcely half the length of the Style.

Our drawing of this pretty little species, was taken from a plant in full bloom, sent to us the beginning of May last, by Messrs. Young, Nurserymen, at Epsom, who received it from the Gardener of Philip Barker Webb, Esq. in whose garden it was raised from seeds, collected and sent home by him from the mountains of Grenada, in Spain; that it is the plant of Willdenow, and the one figured in Waldstein and Kitaibel's work on the rare plants of Hungary, there cannot be the least doubt, but we are not so certain of its being the *I. spathulata* of Decandolle, who describes the flowers as purple, which in Waldstein and Kitaibel's figure are white, as they are also described by Willdenow, but they probably, like some other species, vary in colour.

All authors agree in considering this plant an annual, which it probably is, as our plant died as soon as its seeds were ripened; but from its appearance and mode of growth, we should have been inclined to suppose it suffrutescent, or at least biennial, but that can only be proved by cultivation; should it prove to be annual, it will only require to be sown in the open ground, like other hardy annuals; but if suffrutescent, it will be a valuable plant for rock-work, or to be grown in the borders, thriving well in a light sandy soil.

Iberis is derived from *Iberia* (now Spain), as many of the species are native of that and similar countries.



1. Calyx. 2. The two large Petals. 3. The two smaller ditto. 4. The 6 Stamens, showing their unequal lengths, 2 of them being shorter than the others. 5. The young Silicula, terminated by the Style and capitate 2-lobed Stigma.



Penstemon purpureus (L.) Poir. *Fl. Indica* 1832

Woodville 15

1832-1834

PHLOX procumbens.

Procumbent Lychnidea.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. POLEMONIACEÆ. *D. Don obs. on Polem. in Edinb. phil. journ. p. 4.*

PHLOX. *Calyx* profundè 5-fidus, connivens. *Corolla* hypocrateriformis, limbo explanata, 5-partita: *segmentis* cuneatis. *Stamina* in tubo supra medium inserta, valdè inæqualia. *Capsula* subrotunda: *loculis* monospermis! *valvis* membranaceis. *Semina* oblonga, extus convexa. *Albumen* magnum. *Radicula* cotyledonibus duplò longior!—*Herbæ perennes, rarè suffrutices (Amer. bor. unà ex Asiâ boreali-orientali) pleriquæ erectæ. Folia opposita! integerrima, sessilia. Flores terminales, paniculati v. corymbosi, lilacini v. rosei, rariùs rubri, cærulei aut albi.* *D. Don on the natural family of plants called Polemoniaceæ, p. 5.*

P. procumbens, caule procumbente ramoso: ramis adscendentibus hirsuto-pubescentibus, foliis lanceolatis acutis basi attenuatis glabrusculis margine ciliatis, segmentis calycinis linearibus acutis, corollæ laciniis cuneato-obcordatis: tubo hirsuto erecto calyce subduplo longiore.

Phlox procumbens Lehman Hort. Len.—Hamburg. 1829.

Perennial, herbaceous. *Stems* numerous from the base, procumbent, sometimes rooting, throwing out numerous branches, which are ascending, more or less crooked or flexuose, thickly clothed with short woolly hairs; the flowering stems erect and branched. *Leaves* opposite, lanceolate, acute, tapering to the base, but sessile, of a smooth glossy surface on both sides, the margins fringed with spreading hairs, particularly towards the base. *Flowers* terminating the branches in a sort of few-flowered panicle, lilac, a little tinged with blue. *Peduncles* 1 or 2-flowered, thickly clothed with short woolly hairs. *Pedicles* unequal in length, also hairy. *Calyx* deeply 5-parted, thickly clothed with a hairy pubescence; the segments narrowly linear, acute, spreading at the points. *Corolla* tubular, with a 5-parted spreading limb: *tube* straight, of a bluish purple, thickly clothed with short hairs, about twice the length of the calyx: *limb* spreading: the segments distinct, between obcordate and wedge-shaped, with a shallow notch at the end, each

marked at the base with a handsome dark blue forked spot, which gives the appearance of a blue circle at the mouth. *Stamens* 5, inserted in different parts of the tube, two or three of the upper ones exerted beyond the mouth: *filaments* very short, attached to the back of the anthers: *anthers* sagittate at the base: *pollen* bright yellow. *Ovarium* conical, smooth and glossy. *Style* slender, smooth, about the length of the tube. *Stigma* trifid, the segments linear, at first erect, afterwards spreading.

Our drawing of this beautiful and very distinct species, was taken in May last, from fine specimens kindly sent to us from the rich collection of Robert Barclay, Esq. at Bury Hill: the plant had been received from Dr. Lehman this Spring, through the kindness of Mr. Hunnemann; seeds of it were received from North America by Dr. Lehman, from which the plants were first raised. In habit it is intermediate between *P. subulata* and *P. pildsa*; is it not a hybrid production from those two? It appears to be of very free growth, producing numerous shoots, some of which strike root as they trail on the ground, so that it may be easily increased; it succeeds well in a light sandy soil, or a mixture of sandy loam and light peat or decayed leaves will suit it very well; it will probably require a little protection in Winter, such as a garden pot placed over it in severe frost, but exposing it as much as possible at other times; it also thrives and flowers well in a small pot, in which it may be preserved in a frame in Winter, if found not to be sufficiently hardy; at present it is very rare, and we do not know that it is for sale at any nursery, but will soon become plentiful, and of course will be cultivated in every collection of hardy plants. Cuttings of it will root readily, planted under hand-glasses; it may also be increased by dividing at the root.

Phlox is derived from $\phi\lambda\omicron\xi$, flame, from the blazing, fiery appearance of the flowers of some of the species.



1. Calyx. 2. Tube of the Corolla split open to show the insertion of the 5 Stamens, that are inserted in different parts of the tube. 3. Ovarium, terminated by the slender smooth Style, and trifid Stigma.



2017.11.20

Bought by R. Sweet Pomona Place B. Lham July 1829

Waldoff's Sn

PHILADELPHUS grandiflorus.

Large-flowered Syringa.

Linnean Class and Order. ICOSANDRIA MONOGYNIA.

Natural Order. PHILADELPHÆÆ. *D. Don in James. Edinb. phil. journ.* 1826. April. p. 133.

PHILADELPHUS. *Calyx* tubus obovato-turbinatus, limbus 4-5-partitus. *Petala* 4-5. *Stamina* 20-40 libera petalis breviora. *Styli* 4-5 nunc coaliti nunc plus minus distincti. *Stigma* 4-5 oblonga aut linearia sæpius distincta rarius concreta. *Capsula* 4-5-locularis polysperma. *Semina* scobiformia incluso arillo membranaceo oblongo hinc fimbriato.—*Frutices*; floribus *albis pedicellatis corymboso-cymosis subpaniculatis aut rarius axillaribus bracteatis*. DC. *prodr.* 3. p. 205.

P. grandiflorus, foliis ovatis longè acuminatis denticulatis triplinerviis subtis ad venas hirtis: axillis venarum fasciculato-pilosis, floribus subternis solitariisque, calycibus lobis longè acuminatis, stylis in unicum staminibus longiorem concretis, stigmata 4 linearibus. DC. *prodr.* 3. p. 206.

Philadelphus grandiflorus. Willden. *enum.* 1. p. 511. Spreng. *syst.* 2. p. 493. Guimp. *abb. hobz.* t. 44. Schrad. *diss. cum icon. ex DC. non Bot. reg.*

A handsome dwarf bushy Shrub, attaining the height of 6 to 8 feet: *branches* erect, or somewhat spreading, of a brown chestnut colour, smooth. *Leaves* ovate, tapering to a long slender point, rounded at the base, toothed with small teeth, smooth on the upper side, the veins underneath hairy, with a bunch of hairs in the axils of the veins; triply-nerved underneath, of a pale green colour. *Petioles* short, channelled on the upper side and rounded below, fringed at the margins. *Flowers* very large, pure white, from one to three, terminating the small branches, scarcely scented. *Peduncles* short, smooth, slender at the base and thickening upwards. *Calyx* tubular, obovately top-shaped, quadrangular, with a four-parted spreading limb: tube smooth: segments of the limb ovate, tapering to a slender point, fringed at the edges. *Petals* 4, very large, spreading,

roundly ovate, a little hollow on the upper side. *Stamens* from 50 to 60, inserted in the calyx, unequal in length, but shorter than the Style: *filaments* smooth, attached to the base of the anthers. *Ovarium* smooth, half inferior. *Style* longer than the stamens, entire, or only parted near the point. *Stigmas* 4, linear, somewhat spreading.

The present handsome species must not be confounded with *P. grandiflorus* of the Botanical Register, that being *P. verrucosus*, according to Decandolle's Prodromus; this is altogether a smaller plant, with much larger flowers, the shoots terminating with from 1 to 3, and its leaves are clothed with fascicles of hairs in the axils of the veins, the other part of the leaf being smooth; the plant of the Botanical Register is of strong growth, with smaller flowers, of which there are several in a raceme, and the leaves are entirely clothed underneath with white woolly hairs, so that the young leaves are quite white underneath.

The present species was received from Germany, many years back, by Messrs. Whitley, Brames, and Milne, as the *P. grandiflorus* of Willdenow's Enumeratio, and at their Nursery at Fulham our drawing was taken last month; it is the largest flowered species of the genus with which we are acquainted, and makes a handsome small bushy shrub, producing abundance of flowers in May and June, so that it is a great ornament for the Shrubbery, and not being any the less valuable for wanting the strong scent of the common Syringa, (*P. coronarius*). It thrives well in the Shrubbery in the common soil, and is generally increased by layers, or suckers from the root; but ripened cuttings, of one year's growth, will root freely, if taken off as soon as the shoot is hardened, and planted in a shady situation and well watered.

According to Linnæus, Philadelphus was named in compliment to an Egyptian king.

◆◆◆◆◆

1. One of the shoot leaves, back view, showing the fascicles of hairs in the axils of the veins. 2. Calyx. 3. One of the Petals. 4. Calyx spread open, divested of the segments, showing the insertion of the Stamens. 5. Ovarium, divested of the Calyx, terminated by the long Style and 4 Stigmas.



L. P. B. 1891

Verbena officinalis L. (Veronica)

Veronica

VERBENA chamædryfolia.

Scarlet-flowered Vervain.

Linnean Class & Order. DIDYNAMIA ANGIOSPERMIA.

Natural Order. VERBENACEÆ. *Juss. in ann. du mus.* 7. p. 63.

VERBENA. Calyx tubulosus, quinqueidentatus. Corolla tubo cylindræo; limbo plano, quinquefido; laciniis inæqualibus. Stamina 4, didynama, inclusa. Stylus simplex. Stigma laterale, subglobosum. Drupa parva, exsucca, quadrilocularis, quadripartibilis; loculis monospermis. — *Herbæ aut rariùs suffrutices erecta aut procumbentia* Folia opposita, rigida, sæpissime serrata aut varie incisa. Spicæ alares aut sæpius terminales, solitariae, conglomeratæ aut paniculatæ. Flores sessiles, bracteati, sæpissime violacei. Kth. synops. 2. p. 57-58.

V. chamædryfolia, caule adscendente hispido-piloso, foliis oblongis acutis subpetiolatis grosse serratis calycibusque hispidis; superioribus subintegerrimis, corymbo multifloro terminali: post anthesin spicato, calycibus elongatis hispidis, tubo corollæ calyce duplo longiore; limbi laciniis cuneatis emarginatis.

Verbena chamædryfolia. *Jussieu in Pers. syn.* 2. p. 138. *Spreng. syst.* 2. p. 748.

Verbena veronicifolia. *Smith in Rees encycl. art. Verbena, non Humb.*

Verbena Melindres. *Gillies in Botan. regist.* t. 1184.

Erinus peruvianus. *Linn. Willden. sp. pl.* 3. p. 334.

Lychnidæa Veronicæ folio flore coccineo. *Feuill. peruv.* p. 36. t. 25.

Perennial and somewhat suffrutescent at the base, much branched: *branches* opposite, spreading, more or less decumbent, the points ascending, thickly clothed with rigid bristly hairs of unequal length. *Leaves* opposite, on short footstalks, oblong, oblongly lanceolate, or some of them nearly ovate, deeply serrate; the teeth generally bluntish, but sometimes acute, thickly clothed on both sides, and at the margins with short hispid hairs: upper leaves sometimes entire or with a single tooth on each side, narrower and more pointed. *Petioles* short, flattened on the upper side and rounded below. *Flowers* bright scarlet, in a close corymb, lengthening into a spike as they become overblown. *Peduncles* bluntly quadrangular, hispidly hairy. *Bractes* subulately linear, scarcely half the length of the calyx. *Calyx* long and slender, hispid, 5-angular, shortly 5-cleft or 5-toothed: the segments subulate, unequal in

length, the upper one shortest. *Corolla* tubular, funnel-form, the tube hairy in the throat, nearly double the length of the calyx: limb spreading, 5-cleft, the segments unequal in size, wedge shaped, notched at the ends. *Stamens* 4, two of them longer than the others, inserted in the tube: *anthers* with two distinct spreading lobes. *Ovarium* smooth and glossy. *Style* smooth, slender, thickening upwards, where it becomes club-shaped. *Stigma* 2-lobed.

Our drawing of this beautiful and interesting plant, was taken from fine specimens, sent to us in full bloom, from the Nursery of Messrs. C. J. and P. Young, of Epsom, who inform us that they have a good stock of it for sale; it is certainly one of the finest and most splendid plants that has been introduced to our collections for some time past, particularly as it is so easily cultivated, and propagates so freely from cuttings, thriving well in any rich light soil; and when planted out in a bed or border, nothing can make a more brilliant appearance, requiring no more care than the common *V. Aubletia*, which is often planted out in beds, and produces abundance of flowers all the Summer.

It is doubtful whether the present plant will endure the severest frosts of our winters in the open ground; it will therefore be safest to cover it in severe weather with some dry covering, such as straw or mats, but to leave it exposed whenever the weather is mild: it will also be better to keep plants of it in pots, in frames, or in the Greenhouse, where there is an opportunity, as they will then flower early in Spring, and will be ready to turn out early in the borders, likewise to propagate from; young cuttings, planted in pots of light mould, or in the ground, root freely.

Feuilles mentions it as being found plentifully on the north bank of the river Plate, and in Paraguay; it is also found in Buenos Ayres, from whence it has been introduced to this country.

Verbena was a name applied by the ancients to all sacred leaves, and other sweet herbs used to adorn the altars; and was also used for the herb *Vervain* (*Verbena officinalis*.) According to De Theis, it is an alteration of *ferfaen*, the Celtic name of the plant.



1. Calyx spread open, back view, to show the five angles, with the bracte at the base. 2. Tube of the Corolla spread open, showing the hairy inside, and the insertion of the four stamens, with their two-lobed anthers. 3. Ovarium, terminated by the smooth Style and two-lobed Stigma.



RHODODENDRON Morterii var. carnea.

Mortier's Rhododendron, flesh-coloured.

Linnean Class & Order. PENT-DECANDRIA MONOGYNIA.

Natural Order. ERICACEÆ. D. Don flor. nepal. p. 148.

Subordo III. RHODORACEÆ. D. Don loc. cit. p. 152.

RHODODENDRON. *Calyx* 5-partitus. *Corolla* monopetala, sæpiùs campanulata v. basi tubulosa, (nunc rarò rotata s. 3-partita,) limbo 5-loba, subbilabiata; *labio superiore* latiore, sæpiùs maculato. *Stamina* 5-10, sæpiùs exserta. *Antheræ* apice foramine duplici hiantes. *Capsula* 5-locularis, 5-valvis, rarò (in *R. arboreo*) 10-locularis, 10-valvis, septicido-dehiscens. *Placenta* simplex, angulata. *Semina* compressa, scobiformia, alata.—Frutices v. Arbores, sæpiùs *sempervirentes*. *Folia alterna, integerrima, apice sphacelata s. glandulâ luteâ terminata*. Flores *terminales, corymbosi, speciosi, colore varii*. D. Don prodr. p. 152.

Sect. II. AZALEA. *Corolla* basi tubulosa, infundibuliformis. *Stamina* 5.—Frutices v. Arbores, *plerique deciduis; ramis piloso-hispidis*. *Folia oblonga, ovata v. elliptica, pilosa*. Flores *corymbosi, speciosi, colore varii*.

R. Morterii, foliis elliptico-oblongis acutis basi attenuatis glabriusculis nitidis concoloribus margine ciliatis: nervo supra lanuginoso subtus setigero: pilis incurvis, corollis externe pilosis, tubo laciniis subæqualibus, calycis dentibus brevibus inæqualibus oblongis obtusis, staminibus laciniis corollæ subexcedentibus.

α carnea, flowers flesh-coloured, the upper segment of the limb of an orangy yellow, edged with flesh-colour.

β præstans, flowers of a pale copper-colour, tinged with blush, upper segment of the limb of a coppery yellow.

A handsome bushy growing shrub: *branches* slender, thickly clothed with soft bristle-like hairs, pressed inwards. *Leaves* alternate, petiolate, deciduous, elliptically oblong, acute, tapering towards the base, smooth and glossy, penninerved underneath, the margins fringed with stiff hairs that bend inwards: upper side of the midrib downy, underneath thickly clothed with stiff bristle-like hairs that bend inwards. *Petioles* short, channelled on the upper side, and rounded below, hispidly hairy, and underneath clothed with down. *Flowers* in a many-flowered terminal corymb. *Bractes* surrounding the pedicles at the base, deciduous, dropping off soon after the flowers expansion, ovate, acute, concave or cucullate, more or less boat-shaped. *Pedicles* longer than the bractes, cylindrical, clothed with numerous short glandular hairs. *Calyx* short, 5-parted, the segments unequal in length, oblong, obtuse, fringed and

hairy. *Corolla* tubular, with a 5-parted spreading limb, somewhat viscous: *tube* about the length of the segments of the limb, bluntly 5-angular, channelled between the angles, pale flesh-colour; *limb* 5-parted, spreading: the segments unequal in size, oblongly ovate or lanceolate, acute; the upper one broadest, broadly ovate, of an orangy yellow, margined with pale flesh-colour, the others narrower, flesh-coloured, or a little tinged with yellow. *Stamens* 5, ascending, unequal in length, the longest a little longer than the limb, the others a little shorter: *filaments* hairy in the middle, from about half way, the upper and lower part smooth: *anthers* opening in two pores at the point for the exclusion of the pollen, which is white and stringy. *Ovarium* densely clothed with white close-pressed hispid hairs, longer than the calyx. *Style* longer than the stamens, clothed with short hairs towards the base, from thence to the point smooth and glossy, pale flesh-coloured. *Stigma* capitate, two-lobed, viscous.

Our drawing of this handsome plant was made in June last, at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham, who received it from the Continent under the specific name that we have adopted; it is of hybrid origin, and is intermediate between *R. calendulaceum* and one of the red varieties of *R. nudiflorum*; several other hybrid species and varieties were received by them at the same time, but none more interesting than the present; another variety which we have distinguished under the name of *præstans*, was in flower at the same time, and was sent by the name of *Azalea præstantissima*. From the different hybrid productions and varieties that are now raised from seed, and will be in a few years, will, we have no doubt, bring this handsome tribe into great repute; we saw them flowering in great perfection at Messrs. Whitley and Co.'s Nursery, at Fulham, this Summer; and we also had the pleasure of seeing a splendid collection at Mr. Waterer's Nursery, at Knap-hill, in Surrey, where many of them have almost attained to the size of trees, and are growing in the common soil of the Nursery, which is of a sandy peat, as luxuriant, and perhaps more so, than in their native wilds. Mr. Waterer has also succeeded in raising many fine new varieties, and hybrid productions between most of the old ones, the flowers of which are finer than the old varieties, and of every shade of colour between white, scarlet, purple, and yellow; they all thrive well in the open air, in a sandy peat soil, or a light sandy loam suits them as well: they are generally increased by layers, but new varieties are only to be obtained from seed.

The generic name is derived from *ῥόδον*, a rose, and *δένδρον*, a tree. *Azalea* from *αἰαλιος*, dry or arid, from the situation where many of the species are found wild.

1. Calyx, showing the 5 segments. 2. Tube of the Corolla laid open, to show the 5 angles. 3. The 5 Stamens. 4. The Ovarium densely clothed with white hairs, terminated by a Style a little hairy at the base, and a two-lobed capitate Stigma.



Iris sibirica

Iris sibirica (L.) Hervey & Ait. *Flora Sibirica* 1805

Iris sibirica

IRIS nepalensis.

Nepaul Iris.

Linnean Class and Order. TRIANDRIA MONOGYNIA.

Natural Order. IRIDEÆ. *Brown prodr.* p. 302.

IRIS. *Perianthium* 6-partitum magnum: laciniis 3 alternis rectis; 3 alternis reflexis intus barbatis aut imberbibus basi staminiferis. *Stylus* brevis; *stigmata* 3 petaloidea, oblonga, magna, staminibus incumbentia, sulco longitudinali nectarifero marginato suprâ exarata.

I. nepalensis, barba cristata, foliis lineari-ensiformibus planis nervosis mucronatis, perianthii tubo elongato ovario obtusè trigono ter longiore; laciniis omnibus patentibus reflexis, stigmata fimbriatiorosa, caule tereti paucifloro foliis breviora.

Iris nepalensis. *D. Don prodr. fl. nepal.* p. 54. *Swt. hort. brit.* p. 394. n. 57. *non Bot. reg.*

Roots fascicled, fleshy, resembling those of *Hemerocallis*. *Leaves* flatly distichous, linearly ensiform, of a pale green, in our plants scarcely half an inch broad, and about eighteen inches in length, attenuated to a very sharp point, which terminates in a fine slender mucrone, sheathing each other from the base to about 6 inches up the leaf, strongly nerved with several very prominent nerves, and other fainter ones besides. *Flower-stem* produced from the root, solid, somewhat flexuose, cylindrical, producing from 2 to 4 short leaves, according to its strength, smooth and glossy: the stem-leaves inflated a little towards the base. *Flowers* terminal, and axillary, larger than *I. versicolor*, very handsome and delicate, of a pale blue colour: the outer segments striped with blue and pale yellow. *Spatha* 2-valved, producing 2 or 3 flowers in succession. *Perianthium* tubular, seated on a bluntly three-sided ovary: tube very long and slender, about an inch and half in length, rather longer than the spathe, gradually thickening a little upwards: *limb* 6-parted, the segments spreading, all more or less reflexed, and slightly notched at the points; 3 outer ones rather broadest, oblongly ovate, attenuated towards the base, the ground of a straw-colour, elegantly striped with blue, pale straw-colour at the back; on the upper side is a handsome crest from the base to above half way up, fringed with yellow:

the three inner segments oblong, attenuated towards the base, a little undulate or curled at the margins, of a delicate pale blue, faintly veined. *Stamens* 3, inserted at the base of the outer segments, at the summit of the tube: *filaments* smooth, white: *anthers* linear, bursting longitudinally: *pollen* white. *Ovarium* bluntly three-sided, smooth and glossy. *Style* short, smooth. *Stigmas* 3, petal-like, attenuated to the base, broad at the end, deeply cleft, keeled on the upper side and concave below, jagged at the edges, and more so at the points, which are erosely fimbriate.

Our drawing of this beautiful and singular species of *Iris* was taken the latter end of June last, at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham, where it was raised from seed received from Nepaul, and we believe it to be the first time that it has ever flowered in this country; it differs from all the species that we are acquainted with, by its fleshy roots, resembling those of a *Hemerocallis*, which made Mr. Milne suppose, before it flowered, that it could not be an *Iris*. Mr. D. Don has already observed that the *I. nepalensis* of the Botanical Register was nothing but a European species; and some plants that were received from India by that name, and flowered at Mr. Colvill's Nursery, were nothing more than *I. pallida*, the original species of which was in flower at the time, by the side of them, and we could not observe the slightest difference. Messrs. Whitley and Co. had another Nepaul species, that flowered with them two years ago, a very small dwarf plant, about three inches high, a little resembling *I. ruthenica*, but the flowers lasted so short a time, that we did not succeed in procuring a figure of it, and we fear it is now lost; the present species is now thriving well in a peat bed, but we would advise its being covered a little in severe frosty weather; it may be increased by dividing at the root; the plants are now to be procured at the above Nursery, at ten shillings and sixpence each.

The generic name is derived from $\varphi\iota\varsigma$, the rainbow, from the variety of colours in the flowers of the genus.

◆◆◆

1. Perianthium laid open and divested of the segments, to show the insertion of the 3 stamens. 2. The bluntly 3-sided Ovarium. 3. The short Style, terminated by the 3 petal-like Stigmas, that are deeply cleft, and jagged at the sides, and particularly at the ends.



Herb. by R. Smith. America. Pine-Island. Aug. 1822.

Wardell. 2.

LUPINUS versicolor.

Various-coloured Lupine.

Linnean Class & Order. MONADELPHIA DECANDRIA.

Natural Order. LEGUMINOSÆ. DC. prodr. 2. p. 93.

Subordo I. PAPILIONACEÆ.—Tribus V. PHASEOLEÆ. *Corolla* papilionacea. *Stamina* monadelpha aut sæpiùs diadelpha (9 et 1.) *Legumen* polyspermum dehiscens continuum membranis cellulosis transversis inter semina sitis sæpè subdivisum non verè articulatum. *Radicula* super lorum commissuram inflexa. *Cotyledones* crassæ per germinationem immutatæ aut in folia crassa vix stomatibus donata conversæ, extrà terram et sæpiùs extrà spermodermium exsertæ. —Folia primordialia *opposita!* *omnium foliola numero imparia sæpiùs pinnatim, rariùs palmatim disposita.* DC. prodr. 2. p. 361.

LUPINUS. *Calyx* profundè bilabiatus. *Corolla* papilionacea, vexillo lateribus reflexis, carinà acuminatà. *Stamina* monadelpha, vaginà integrâ; antheris 5 parvis subrotundioribus præcocioribus, 5 oblongis serioribus. *Stylus* filiformis. *Stigma* terminale subrotundum barbatum. *Legumen* coriaceum oblongum compressum obliquè torulosum. *Cotyledones* crassæ per germinibus in folia conversæ.—Herbæ aut suffrutices. *Stipulæ petiolo adnatæ.* Folia sæpiùs *foliolis 5-9 digitatis constantia, rariùs simplicia: foliola antè explicationem aut per somnum complicata.* Pedunculi *oppositifolii terminales.* Flores *racemoso-spicati alterni aut verticillati pedicellati aut sessiles.* Bractea *subpedicellis.* Bracteolæ 2 *lateraliter calyci adnatæ caducæ aut nullæ.* DC. prodr. 2. p. 406-407.

L. versicolor, fruticosus erectus ramosus: ramis foliisque pubescentibus, foliolis 6-9 spathulato-lanceolatis obtusiusculis submucronulatis: supra glabriusculis: subtus pubescentibus adpresso-pilosis, stipulis subulato-linearibus, racemis elongatis breve pedunculatis, floribus subverticillatis, bracteis caducis patentibus sericeis ciliatis calyce sericeo longioribus, labio superiore bifido: inferiore integro.

A handsome upright frutescent species. *Branches* erect, hollow, more or less tinged with purple, densely clothed with a close short white pubescence, and a few close pressed short hairs intermixed. *Leaves* bearing from 6 to 9 leaflets in our specimens: *leaflets* spathulately lanceolate, bluntish, when young appearing more acute, from their sides being bent inwards, causing a channel on the upper side, terminated in a sort of short mucrone, much attenuated towards the base; the upper side smoothish, with something of a soft velvety appearance: underneath densely pubescent, also thinly clothed with close-pressed procumbent hairs. *Petioles* channelled on the upper side and convex below, dilated at the base, and decurrent a little way down the stem, densely pubescent. *Stipules* subulately linear,

tapering to a long slender point, clothed with a silky pubescence, attached to the petioles at some distance above the base. *Racemes* terminal, opposite to a leaf, very handsome, elongated, on a shortish peduncle. *Peduncle* clothed with a short close-pressed white pubescence. *Bractes* at the base of the pedicles, longer than the calyx before the flowers expand, but dropping before their expansion, lanceolate, acute, the points a little reflexed, clothed with a short pubescence, and fringed with long soft hairs. *Flowers* small, but very handsome, beautifully variegated with blue of various shades and light purple, growing partly in whorls, and partly scattered. *Pedicles* short, nodding forward a little, densely pubescent. *Calyx* without bractes at its base, densely clothed with close-pressed silky hairs: *upper lip* short, bifid; *lower one* longer, ovately lanceolate, acute, keeled. *Vexillum* ovate, keeled at the back, of a purple lilac above half way down, then becoming blue on each side. *Alæ* or *wings* oblong, obtuse, stuck together at the points, ending in a short slender unguis at the base, of a bright dark blue somewhat tinged with purple. *Keel* acute, a little longer than the wings, of a bluish ash-colour, dark purple towards the point, bearing a short unguis on each side at the base. *Stamens* 10, all joined in a tube, but distinct at the points, the 5 longest bearing small round anthers, and the 5 shortest linear ones. *Ovarium* thickly clothed with silky white hairs. *Style* smooth, ascending. *Stigma* capitate, bearded.

The present beautiful, and, as far as we can decide, perfectly new species, is a native of Mexico, from whence seeds of it were received by Robert Barclay, Esq. of Bury-hill, last year; they were sown last Autumn; and we are informed by Mr. D. Cameron that it is a frutescent species, and has already attained the height of two feet and a half, by the side of a wall in the flower-garden, producing numerous branches, that are covered with their elegant spikes of handsome variegated flowers, which will be produced the whole Summer; the flowers themselves are not so large as some species, but their number makes up that deficiency; the plant will most probably require a little covering in Winter, if the frost sets in severe, except planted in a very sheltered situation; a light rich soil suits it best, and it may be increased by young cuttings planted under hand-glasses, or by seeds, which will no doubt be produced.

The generic name is said to be derived from *lupus*, a wolf, because its roots devour the ground; it was also given by the ancients to a kind of pulse, of bitter and harsh taste.



1. Calyx. 2. Vexillum. 3. The 2 wings. 4. Keel. 5. The 10 Stamens connected into a tube, but distinct at the points, the tube laid open, to show the 5 round and 5 linear anthers. 6. Ovarium, terminated by the Style and bearded Stigma.



E. P. Smith & Co.

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Wood & Co. & Co.

PHLOX cordata.*Heart-leaved Lychnidea.**Linnean Class and Order.* PENTANDRIA MONOGYNIA.*Natural Order.* POLEMONIACEÆ. *D. Don. obs. on Polem.**p. 4.**PHLOX.* Supra, fol. 7. series 2.

P. cordata, foliis oblongo-cordatis subacuminatis margine scabris, corymbis paniculatis, calycibus longe aristatis. *Ell. cur. 1. p. 244.*

Stems several, erect, 2 to 3 feet high, smooth, slightly angular. *Leaves* oblong, somewhat taper-pointed, penninerved, the nerves branched, smooth on both sides, but very rough at the edges, of a darkish green on the upper side and pale underneath: lower ones petiolate, opposite, somewhat tapering to the base: the upper ones often alternate, nearly sessile, cordate and slightly auriculate at the base. *Corymbs* terminal and axillary, somewhat paniced, many-flowered. *Flowers* numerous, of a bright purplish lilac, very fragrant. *Bractes* linear, taper-pointed, longer than the pedicles, smooth. *Pedicles* and *calyx* slightly pubescent, the pubescence scarcely to be seen without the aid of a lens. *Calyx* tubular, 5-angled, and terminated in 5 long aristas, as long as the tube of the calyx. *Corolla* tubular, with a 5-cleft spreading limb: *tube* long, densely pubescent on the outside, pale purple: *limb* spreading, the segments obovate, rounded, distinctly spreading, or slightly imbricate at the base, of a purple lilac, lighter at the edges. *Stamens* 5, inserted in different parts of the tube, 2 or 3 of the anthers exerted at the mouth, the others enclosed: *filaments* short, smooth, attached to the back of the anthers. *Ovarium* smooth. *Style* smooth, included in the tube. *Stigma* 3-cleft. *Capsules* roundly oval, 3-valved, with one seed in each cell. *Seed* oblong, rough.

Our drawing of the present handsome plant, was taken from fine specimens sent to us last Summer, from the collection of Robert Barclay, Esq. of Bury-hill; and we are informed by Mr. David Cameron that the plant was received from Mr. T. Nuttall, who sent it with several other plants from North America. Sprengel joins this species with *P. paniculàta*, but it is certainly a very distinct plant, and differs sufficiently from all the described species: it agrees precisely with the character of Elliott in his *Flora Caroliniana*, but is altogether a smaller plant than *P. paniculàta*, and not so much branched.

As the present species is a native of Carolina, it may be considered rather more tender than some of the other species; it will therefore be safest to keep some small plants of it in pots, that they may be preserved in frames, in severe weather, but exposing them as much as possible to the air when the weather is mild; if left in the open borders all the Winter, it will be requisite to cover the roots, either with a little dung or litter, or a common flower-pot placed over them in severe frost will secure them very well; by the latter means, we find the greater part of the Mexican, Chilian, and Peruvian herbaceous or suffrutescent plants succeed well through the Winter, always exposing them when there is no frost: the present plant grows freely in a border of the flower-garden, and will succeed well in the common garden soil; it may be readily increased by planting young cuttings under hand-glasses in Spring, which soon strike root, and make flowering plants the same season; there are now several handsome hybrid productions between the various species in the gardens and nurseries.

For the derivation of the generic name, see folio 7 of the present series.



1. One of the lower leaves. 2. Calyx showing its long slender teeth or segments.
3. Tube of the Corolla spread open, showing the insertion of the 5 Stamens.
4. Ovarium terminated by the Style and three-cleft Stigma.



W. B. H. H. D.

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HABRANTHUS robustus.

Robust Habranthus.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDEE. *Brown prodr.* 1. p. 296.

Tribus III. HIPPEASTRIFORMES. Scapus cavus. Tubi faux arcta. Semina testâ nigrâ. *W. Herbert Botan. magaz. vol. 52. 2806.* p. III.*

HABRANTHUS. *Perianthium* declinatum, infundibuliforme, sub sole patentior. *Filamenta* pariter ad faucem tubi inserta, declinata, recurvata, fasciculata; quaternâ longitudinis discrepantiâ. *Antheræ* incumbentes. *Stigma* trifidum. *W. Herbert Botan. magaz. loc. cit.*

H. robustus, scapo 5-9-unciali unifloro, spathâ marcescente sesquiunciali apice diviso, pedunculo 2½ unciali viridi, germine viridi, limbo 3½ unciali; basi viridi; medio albo; cætera roseo: tubo subnullo fimbriato, stylo et stigmate albo limbo unciam brevior filamenti longiore, foliis glaucescentibus ¾ uncia latis, bulbo ovato. *W. Herbert Mss.*

Habranthus robustus was imported by Mr. Mackay, from the neighbourhood of Buenos Ayres; from whence he has received several other species, apparently of the same genus. **HABRANTHUS** comes near to **ZEPHYRANTHES**, but differs in having the style and filaments declined and fasciculated, and the filaments of 4 lengths, which, in **ZEPHYRANTHES**, are of alternate lengths, suberect and conniving. The petals of **HABRANTHUS** are also of 4 different breadths. The genus may generally be recognised by blacker bulbs, and stiffer harder leaves. The figure was taken from a bulb which flowered at Spofforth, in July. This beautiful species flowers repeatedly, and ripens its seed very readily. W. H.

For the drawing, and the above account, we are indebted to the Honourable and Reverend William Herbert, who was so kind as to send it to us from his collection at Spofforth, in Yorkshire, last month. We have

also received a bulb of it from Mr. Mackay, of the Clapton Nursery, which stood the Winter well, planted by the side of a wall, in a border, with a southern aspect ; it was planted about six inches deep, and a garden pot placed over it in the severe frosty weather, but no other covering. The greatest difficulty we find, is, in keeping it from the slugs, which are remarkably fond of the foliage of it, as they are also of *Zephyránthes cándida*.

The present species flowers frequently, and at different times, through the Summer and Autumn, and is, therefore, a very desirable plant for the Flower Garden ; the flowers have also a pleasant scent, but not a powerful one. The best situation for it is by the side of a wall, in a southern aspect, as it will not be so liable to be injured by too much moisture, as if grown in a more exposed situation ; if several bulbs of it are grown together in the same place, a slight covering will do for the whole of them ; and if the bulbs are planted about six inches deep, in a light sandy soil, they will not require the least protection, except the frost is unusually severe : if grown in pots, an equal mixture of turfy loam, peat, and sand, will be the best soil for them ; and they will require the protection of frames, or of the Greenhouse, in Winter, giving them a good supply of water, when growing freely, or coming into bloom ; but they require very little, when in a dormant state. They may be increased by offsets from the root, or by seed, which will ripen in abundance, if a little care be taken to fertilize the stigma with the pollen, when in bloom.

The generic name is derived from *αβρος*, soft and delicate ; and *ανθος*, a flower, from the delicate appearance of the flowers belonging to the genus.



1. The six Stamens, showing their unequal lengths. 2. Style terminated by the three-cleft Stigma.



1. Petal.

2. Petal. 3. Petal. 4. Petal. 5. Petal. 6. Petal. 7. Petal. 8. Petal. 9. Petal. 10. Petal.

11. Petal.

ALSTRÆMERIA psittacina.

Parrot-like Alstræmeria.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆE. *Brown prodr.* 1. p. 296.

Sect. IV. ALSTRÆMERIÆ. Perianthium subcampanulatum, sexpartitum, irregulare. *Stigma* trifidum. *Capsula* trilocularis; loculis polyspermis. *Semina* rotunda, sæpè extus carnosæ.—*Radix tuberosa.* *Herbæ caulescentes: caulis erectus, scandens aut volubilis, foliatus.* *Flores terminales, umbellati aut subpaniculati.*

ALSTRÆMERIA. Perianthium superum, petaloideum, subcampanulatum, sexpartitum, irregulare; laciniis duabus interioribus basi tubuloso-convolutis. *Stamina* 6, laciniis inserta, demum declinata. *Stigma* trifidum. *Capsula* trilocularis; loculis polyspermis. *Stot. br. flor. gar. ser.* 1. t. 228.

A. psittacina, glaberrima, caule erecto maculato, foliis oblongo-lanceolatis acutis nervosis basi attenuatis tortis, umbellis multifloris, pedunculis unifloris angulatis, perianthii laciniis acutis superne maculatis: interioribus lanceolatis: exterioribus oblongo-spathulatis basi longe attenuatis.

Alstræmeria psittacina. *Lehmann. cat. hort. hamb.* 1826, ex *Schultes syst. veg.* v. 7. par. 1. p. 739.

Stems several from the same root, erect, smooth, leafy, the leaves rather distant, upper part quite naked, spotted all over with innumerable pale purple spots: the sterile branches much shorter than the flower-bearing ones, and their stems spotted with fainter spots. *Leaves* smooth, sessile, attenuated and twisted at the base, veined with numerous veins, slightly decurrent down the stem, of a bright glossy green on the upper side, which should have been the under only for the twist at the base: the lower side paler, and producing numerous veins, as if really the lower side, but it is only such by the twist at the base of the leaf: those on the sterile branches ovate, bluntish, more numerous veined than those on the fertile ones, and of a paler colour: these on the flower-bearing ones distant, narrower, oblongly lanceolate, acute, regularly attenuated towards the base, not so abruptly as those on the sterile ones. *Involucre* of 9 to 12 bracteal leaves, unequal in size and form, oblongly lanceolate, linearly lanceolate, and linear, acute, of the form and texture of the leaf, with a twist also at their base, a little longer than the peduncles. *Umbels* many-flowered, in our specimen 10-flowered. *Peduncles* about an inch long, six-angled, the angles more or less winged. *Ovary* below the perianthium, deeply and sharply six-angled, the angles margined

with a white cartilaginous margin. *Flowers* of a crimson purple at the base, the points green, spotted with purple. *Perianthium* of 6 leaflets, scarcely united at the base; the three inner ones lanceolate and acute, or a little acuminate; the outer ones oblongly spatulate, acute; all attenuated to the base, keeled and veined at the back, and channelled down the inside, the margins slightly crenulate or uneven; the lower part of a crimson purple, the upper part green, spotted with numerous short purple linear spots: upper outer leaflet rather longest and broadest, tubular down the unguis, by the sides being pressed inwards towards each other, fringed with short fringe down the unguis: the two upper inner ones also longer than the others, and fringed with long stiff fringe down the unguis, which is also tubular, as it is in all except the lower one, which is flat all the way, and shorter than any of the others, that and the two lower side ones fringed only at the base. *Stamens* 6, shorter than the leaflets of the perianthium: *filaments* pale red, smooth, inserted in the base of the anthers, which are oblong, nearly ovate before bursting: *pollen* ash-coloured. *Style* smooth, pale flesh-colour, about the length of the stamens. *Stigma* 3-cleft, the segments at first erect and connivent, afterwards spreading.

For the opportunity afforded us of giving a figure of the present rare and splendid plant, we are obliged to the kindness of Robert Barclay, Esq., of Bury-Hill, who was so obliging as to send us a fine specimen of it in full bloom. Mr. Cameron informs us that it is growing in the open border in front of the houses, where it does better than any of the other species, and has been a long time in bloom; the plant had been procured from Dr. Lehmann, through the kindness of Mr. Hunnemann, this Spring, so that it is of very late introduction. In the sixth volume of Schulte's *Systema*, there is a short description of it copied from Lehmann's catalogue of the garden of Hamburgh, but there is no account of where it is a native; but we are informed by Mr. Otto, the Curator of the Botanic Garden at Berlin, who saw our specimen, that it is a native of Mexico, otherwise we should have been inclined to believe the *A. monticola* of Martius to have been scarcely different; but as that is a native of Brazil, they can hardly be the same. We find the greater part, or all the species of this genus from Mexico, Chile, and Peru, to thrive well in a warm border, in the open air. *A. hirtella* is now magnificently in flower with us, the fourth season of its blooming without the least protection, except a single mat thrown over in severe frost; and *A. Simsii* has flowered magnificently by the side of it, and is ripening its seeds.

The genus was named by Linnæus, in compliment to his friend, Baron Claudius Alstroemer, of Sweden; who, in his travels through Europe, had sent him many plants, amongst them seeds of *A. Pelagrina* from Spain, to which country it had been introduced from Peru.



1.1.1. The three outer leaflets of the Perianthium, a Stamen affixed to the base of each. 2.2.2. The three inner leaflets, all more or less fringed at the base. 3. Style terminated by the three Stigmas. 4. Sterile branch.



lobed, inserted in the mouth of the calyx, alternate with the segments, and of the same colour. *Stamens* 8, included, 4 inserted in the mouth, and 4 a little lower down in the tube: *filaments* short and smooth, attached to the back of the anthers: *anthers* two-lobed, bursting at the points for the exclusion of the pollen. *Style* smooth, pale red, very slightly exserted. *Stigma* 4-lobed, white, the lobes blunt and spreading.

The present handsome, bushy, evergreen Shrub, is a native of Mexico, where it was found by Humboldt and Bonpland, growing spontaneously round the volcanic mountain of Jorullo, flowering in September; with us it forms a handsome bush of pyramidal growth, and is covered with flowers nearly all the Summer, and will ripen its seed, as we see the berries have already attained to a considerable size; there can be no doubt but it will prove as hardy as *F. coccinea* and *F. grácilis*, which endure the Winters well in a sheltered situation by the side of a wall, where, if they are protected by a mat or any other slight covering in severe weather, they will pass the Winter uninjured, and produce an abundance of flowers all the Summer; and if not protected at all, they will still survive, though killed down to the ground; in Spring they push out strong young shoots, which soon attain a good size, and become loaded with flowers.

The plant from which our drawing was made, was sent to us by Messrs. Young, of the Epsom Nursery; the seeds from which it was raised was given them by their late friend Colonel Mitchell, who received them from Mexico: we have also received specimens of the same species from Mr. J. Mackay, of the Clapton Nursery, who also has raised several plants of it from seeds: it succeeds well in an equal mixture of sandy loam and peat; and young cuttings, planted in the same sort of soil, and placed under a hand-glass, strike root readily; it may also be raised from seeds; but the seedling plants will not flower so readily as those raised from cuttings.

The genus was named in compliment to Leonard Fuchs, a noted German botanist, author of *Historia Stirpium*, in 1542, with 516 engravings on wood.



1. Tube of the Calyx spread open, to show the insertion of the eight Stamens.
2. The same divested of the Stamens, but showing the four petals inserted in the mouth, and alternate with the segments of the calyx.
3. Ovary, terminated by the Style and four-lobed Stigma.



Amorphina

Amorphina (L.) J. Gay, 1859, *Prodr. Fl. Ind. 1242*

Rosa del Rio

COBURGIA incarnata.

Splendid Coburgia.

Class and Order. MONADELPHIA HEXANDRIA.

Natural Order. AMARYLLIDÆ. *Brown prodr.* 1. p. 296.

Tribus II. PANCRATIFORMES. Scapus solidus. Corona staminifera. *W. Herbert in Botan. magaz.* v. 52. 2606.* p. II.

COBURGIA. *Ovarium* oblongum, triquetrum. *Perianthium* longe tubulosum, infundibuliforme: *limbo* 6-partito, regulari; laciniis imbricatis: *tubus* curvato-declinatus, angulatus, basi attenuatus, supra medium ventricosus. *Corona* campanulata, brevissima, membranacea, 6-partita, inter laciniis staminifera: laciniis patentibus bidentatus. *Stamina* 6: *filamenta* basi subdilatata, apice conniventia: *Antheræ* incumbentes. *Stigma* obtusum, trigonum, papillosum. *Capsula* trilobularis; loculis polyspermis. *Semina* alato-marginata?

C. incarnata, subquadriflorum, foliis linearibus obtusis glaucescentibus striatis obsolete reticulatis, scapo foliis subduplo longiore ancipite, perianthii laciniis ovato-ellipticis.

Pancratium incarnatum. *Humb. Bonpl. et Kunth. nov. gen. et spec.* 1. p. 280. *Kth. synops.* 1. p. 287. *Spreng. syst.* 2. p. 48.

Bulb very similar to *Sprekèlia formosissima* or *Jacoea Lily*, clothed with two or three layers of brown shelly scales. *Leaves* 5 or 6, oblongly linear, bluntish, striate, and obsoletely reticulate, smooth at the edges, slightly glaucous, channelled on the upper side, and bluntly keeled below, attenuated a little to the base and point, nearly an inch broad, and about eighteen inches long. *Scape* erect, solid, somewhat compressed, having two sharpish edges, those are sharpest upwards, and more rounded below, about two feet and a half high. *Spatha* of four bractes; the two outer ones longest, membranaceous, broadly lanceolate, acute, striated with many prominent veins, turning brown and falling off, soon after the flowers expansion. *Umbel* 4-flowered. *Pedicles* short, smooth, glaucous, slightly 3-sided. *Ovarium* below the flower, oblongly ovate, sharply 3-sided, smooth, and very slightly glaucous. *Flowers* of a brilliant orangy salmon colour, 5 inches in length: *tube* bluntly triangular, hollowed a little between the angles, very slender at the base, becoming gradually more expanded upwards, inflated from a little above the middle, of a brilliant glossy colour: *limb* 6-cleft; segments about an inch long, ovately elliptic, bluntish, but terminating in a short point, the three inner ones nearly equal with the

outer ones, neatly imbricated over each other at the base; of rather a lighter colour than the tube, more inclining to flesh-colour, with a green stripe down the back of each. *Crown* short, attached to the mouth of the tube, membranaceous, erect, campanulate, bearing 6 segments between the stamens: *segments* spreading, broadly linear, each forked or two-toothed, of a yellowish green. *Stamens* 6, seated on the crown, scarcely so long as the segments of the limb: the filaments running down the tube, alternate with the forked segments: *filaments* erect, a little dilated at the base, tapering to a slender point, and attached to the back of the anthers, which all face inwards: *anthers* linear, two-lobed: *pollen* composed of numerous small cylindrical grains, connected with a sort of stringy web. *Style* smooth, slender, extended a little beyond the stamens at first, but growing to a great length after. *Stigma* simple, obtuse, obsoletely 3-sided, papillose.

Our drawing of this grand, and certainly very distinct genus, was made from a strong bulb in full flower, sent to us by the kindness of Mr. Joseph Knight, from his Nursery, in the King's-road, Chelsea, who received it from Quito, a Province of Peru, with some others, about two years ago, and it has now flowered with him for the first time. It was first discovered by the noted travellers, Humboldt and Bonpland, who found it growing on the banks of the river Machangara, near Quito, at the altitude of eight thousand, nine hundred and ten feet, above the level of the sea, so that there can be no doubt but it will prove sufficiently hardy to endure our winters, if planted about six inches deep in a warm border in a sheltered situation; a rich loamy soil that is very sandy will be most proper for it, and it would be the safest plan to cover it a little in Winter, till such time as it has had a fair trial; as we expect it is at present very rare, not having heard of it in any other collection; but when the bulbs get well established, there can be no doubt but they will ripen seeds freely, as we perceived there were a great quantity of immature seeds in a withered capsule, that did not come to perfection; the seeds appeared to have a membranaceous winged margin, in the young state that we examined them.

We have named the present handsome genus in compliment to his Royal Highness Leopold, Prince of Saxe Coburg, who is much attached to Botanical science, and to the bulbous rooted plants in particular, in whose collection at Claremont, several rare ones have flowered for the first time in this country. We suspect that *Pancrætium aurantiacum* of Kunth, will belong to the same genus: the COBURGIA of Mr. Herbert, is now joined with his genus HIPPEASTRUM.



1. The upper part of the flower cut off, and spread open, showing the crown on which the 6 Stamens are fixed, the filaments inserted into the back of the anthers, and between each stamen is a linear forked segment. 2. The three-sided Ovarium, terminated by the long, slender, smooth Style, that ends in a simple, blunt, obsoletely 3-sided, papillose Stigma.



Ed. Smith del.

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Walden's

ASCLEPIAS pulchra.

Pretty Hairy Swallow-wort.

Linnean Class and Order. PENTANDRIA DIGYNIA.

Natural Order. ASCLEPIADEÆ. *Brown in Wern. trans. edinb.* 1. p. 12.

Tribus I. ASCLEPIEÆ. Pollinis massæ (10-20) cereaceæ læves, nec in granulis separandæ.

Div. I. Corpuscula stigmatis (5) sulco longitudinali bipartibilia juxta basin vel latere utrinque exserentia processum massam pollinis unam affigentem.

§§§. *Pollinis massæ pendulæ*, apice vel supra medium lateris affixæ. *Antheræ* membranâ terminatæ.

1. Tubus stamineus appendiculatus.—A. Corona staminea simplex pentaphylla, foliolis antheris oppositis, lacinulis 5 nanis in eadem serie quandoque interjectis.

a. *Corolla* quinquepartita reflexa. *Coronæ foliola* subcucullata, apice tubi filamentorum imposita.

ASCLEPIAS. *Massæ pollinis* læves, 10, pendulæ. *Corona staminea* simplex, pentaphylla: foliolis cucullatis, e fundo exserentibus processum aversum corniformem. *Corolla* reflexa. *Folliculi* læves. *Hort. Kew. ed.* 2. v. 2. p. 80.

A. *pulchra*, foliis brevi petiolatis subcordato-oblongis acutis utrinque hirsutis, caule erecto villosio superne diviso, umbellis subterminalibus geminis erectis.

Asclepias pulchra. *Ehrhart. Willden. spec.* 1: p. 1267. *Enum.* 1. p. 278. *Link enum.* 1. p. 252. *Schult. syst. veg.* 6. p. 72. *Spreng. syst.* 1. p. 848.

Asclepias incarnata β *pulchra.* *Pers. synops.* 1. p. 276. *Pursh. fl. amer. sept.* 1. p. 181.

A hardy herbaceous perennial. *Stems* several from the same root, erect, three to five feet high, densely clothed with villous hairs, branching near the point. *Leaves* opposite, on short footstalks, oblong or oblongly lanceolate, acute, cordate at the base, the margins roughish and slightly bent backwards, hairy on both sides, underneath strongly feather-nerved, and reticulately veined, from 5 to 6 inches long, and two and a half to three inches broad in the broadest part. *Petioles* furrowed on the upper side, and convex below. *Umbels* generally in pairs, many-flowered. *Peduncles* villous. *Involute* of numerous narrowly linear, acute, villous and fringed bractes. *Flowers* purple, in a close, crowded umbel. *Pedicles* long and slender, thickest at the base, and tapering upwards, purple, very hairy, the

hairs curved inwards. *Calyx* deeply 5-parted, persistent, the segments narrowly lanceolate, acute, pubescent, spreading. *Corolla* deeply 5-parted; the segments lanceolate, scarcely acute, reflexed, the points ascending, of a darkish purple, smooth on both sides. *Stamens* 5, alternate with the segments, winged on each side with a membranaceous wing, close-pressed to the styles; these can only be seen in a perfect state in a young flower-bud before expansion, they are then quite distinct, but afterwards become attached by their pollen masses to the styles. *Stamineous crown* of 5 erect, hollow, tubularly cucullate leaflets, each producing a filiform subulate horn on the inside, which is about the length or rather longer than the tubular leaflets, the points sharp and curved inwards. *Ovaria* 2, smooth. *Styles* 2, smooth, distinct, about the length of the stamens, crowned and connected by a large 5-sided fleshy stigma.

This pretty plant is a native of North America, but when first introduced to this country appears not to be ascertained, perhaps about the same time as *A. incarnata*, a species with which it has sometimes been confused, and of which it has by some been considered only as a variety; but it is certainly a very distinct species, as we have seen hundreds of them raised from seeds without any variation in them, and none of them approaching in the least nearer to that species: it makes a handsome stately perennial, attaining to the height of three or four feet in the common garden soil, and considerably more if planted in peat, continuing to produce an abundance of its curious purple flowers from July to the middle of September; the flowers of several species of this natural order, have the singular faculty of catching flies, which are attracted to the flowers for the sake of the honey, which is produced in most of them in great abundance; and we have sometimes observed a few entrapped in the flowers of the present species, but not so often as in some others.

A. incarnata has a smooth shining stem, and smooth leaves tapering to both ends, whereas the present is very hairy all over, and its leaves rounded at the base, the lower ones being cordate. Our drawing was taken from a plant at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham; we also received it from Mr. Colvill's Nursery, and from Messrs. Young's, at Epsom. It is readily increased by dividing at the root, or by seeds; the latter are produced in pods, imbedded in cotton, as are those of the whole genus.

The genus was named after *Αἰσκάπιος*, (in Latin *Æsculapius*), a famous Greek physician.



1. Calyx, showing the two Ovariums. 2. Corolla spread flatly open. 3. Stamineous crown spread open, showing its tubular base, and the filiform horn in each. 4. The 5 Stamens. 5. The 2 Ovariums terminated by two Styles, that are crowned and connected by a large capitate, 5-sided, fleshy Stigma.



E. m. m. 54

Pub. by J. Rudgway, Jr. Acropolis 0011319

W. m. d. 10

ÆNOTHERA Lindleyana.

Lindley's Enothera.

Linnean Class and Order. OCTANDRIA MONOGYNIA.

Natural Order. ONAGRARIÆ. DC. prodr. v. 3. p. 35.

ÆNOTHERA. *Calyx* 4-sepalus, sepalis coalitis in tubum longum tetragonum vel octocostatum, limbo parteque tubi post anthesin caduco. *Petala* 4. *Stamina* 8, erecta vel declinata, polline triangulari viscoso. *Stigma* 4-fidum vel sphaericum. *Capsula* oblongo-linearis obtusè tetragona vel obovato-clavata 4-locularis, 4-valvis, polysperma, cum basi calycis coalita. *Semina* affixa placentæ centrali, demum liberæ.—*Herbæ vel suffrutices. Folia alterna sæpius dentata, laciniata vel pinnatifida. Flores axillares solitarii aut terminales spicati. Corolla alba, flava, variis aurantiaca aut purpurea.* DC. prod. v. 3. p. 45-46.

Sect. II. ONAGRA. *Stigma* quadrifidum. *Antheræ* oblongo-lineares basi sæpè emarginatæ. *Fructus* oblongus cylindrico-tetragonus, valvis linearibus. DC. prodr. 3. p. 46.

Æ. Lindleyana, caule basi suffruticoso ramoso diffuso : ramis adscendentibus canescenti-pubescentibus, foliis lineari-lanceolatis integerrimis aut subdenticulatis pubescentibus, capsulis elongatis cylindricis quadrisulcatis pubescentibus, petalis calyce duplo longioribus. *Enothera Lindleyana. Douglas Mss. Lindl. Bot. reg. in obs. Enothera Lindleyii. Hooker Botan. magaz. 2832.*

Annual. *Stems* numerous, woody or suffrutescent at the base, spreading in all directions : *branches* long and slender, ascending, long, and naked between the leaves, clothed with a short hoary pubescence, more or less tinged with purple. *Leaves* linearly lanceolate, attenuated at both ends, entire, or the lower ones more or less toothed, clothed with a very short canescent pubescence on both sides, that gives rather a hoary appearance. *Petioles* short, pubescent. *Flowers* rather distant, axillary and terminal, pale purple, lighter at the base, and generally marked with four bright red patches in the centre similar to *Æ. roseo-alba*, but sometimes the spots are wanting. *Capsule* sessile, cylindrical, tapering to the point, four-furrowed, canescently pubescent. *Calyx*

above the ovary, shortly tubular, and bluntly four-sided, consisting of 4 sepals that are all connected, but as the flower expands, the calyx bursts on one side for its exclusion: *sepals* about half the length of the petals, lanceolate, acute, densely clothed with a short pubescence. *Petals* 4, broadly obovate, imbricate, generally crenulate at the points, each generally marked with a large blood-coloured spot in the centre, but which is wanting in some plants. *Stamens* 8, inserted in the mouth of the tube with the petals, about half the length of the petals, every other one longest; those that are alternate with the petals longer than these that are opposite to them: *filaments* smooth, a little flattened, white, attached to the anthers just above the base: *anthers* linear, hairy at the back, two-lobed, purple below with a white point: *pollen* cream-coloured. *Style* smooth, about the length of the stamens. *Stigma* 4-cleft, the segments flat, linear, spreading, white, papillose on the upper side.

The present subject is described in the Botanical Magazine as having smooth leaves, and the capsule without furrows, and smooth; but in all the numerous plants that we have examined this season, we have always found the leaves thickly clothed on both sides with a short pubescence, and the capsules have been all four-furrowed, and clothed with a hoary pubescence; it may be considered as a very ornamental annual plant, requiring no other care than to be sown in the open borders in Spring, and to be kept clear from weeds; the plants will then continue to bloom from July to October, and last season we observed it in flower till near Christmas.

This is one of the many different species collected by Mr. D. Douglas in his journey to the north-west coast of America, where it is said to have been found by him, in 1826, in the dry, woodless parts of the interior, and it is certainly one of the most beautiful species that has been introduced from that country; the numerous different species that have been introduced within these few years to our gardens, from different parts of America, has increased the genus to above double the number of what it before contained; and many of them are amongst the most beautiful, and are a great acquisition to our list of hardy annual and perennial plants.

The generic name is derived from *οινος*, wine, and *σῆλα*, a hunt, or wild beast; the roots steeped in wine, is said to calm a fierce beast. Linnæus says, *σῆλα*, os, or mouth; so that he most probably meant the flower to resemble a funnel to pour wine through.

1. Calyx seated on the ovary, the four segments spread open, to show the insertion of the eight Stamens. 2. Ovary terminated by the Style and four cleft spreading Stigma.



Adiantum

Pub. by J. B. Gray. 189. Propag. by C. C. C. C.

W. C. C. C.

CYCLOBÓTHRA purpurea.

Purple Cyclobothra.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. TULIPACEÆ. *Kth. synops.* 1. p. 292.

CYCLOBOTHRA. *Perianthium* petaloideum, hexaphyllo-partitum, imbricato-subcampanulatum: foliolis rectiusculis subpatentibus, intus supra basin fovea nectarifera excavatis; exterioribus duplo minoribus. *Stamina* 6, basi perianthio inserta; *filamenta* planiuscula. *Ovarium* trigonum, trisulcatum. *Stigmata* 3, introrsum canaliculata, apice reflexa. *Capsula* oblonga, obtuse trigona, polysperma.—*Radix bulbosa.* *Caulis herbaceus, foliatus.* *Flores terminales, nutantes.*

C. purpurea, caule paucifloro, foliis sparsis canaliculatis elongato-acuminatis glaucescentibus: inferioribus linearibus; superioribus basi dilatatis, perianthii foliolis inæqualibus: exterioribus lanceolato-oblongis acutis glabris: interioribus oblongis obtusis fimbriato-ciliatis.

Fritillaria purpurea. *Humb. Bonpl. and Kth. nov. gen. et spec. amer. æq.* 1. p. 288. *Kth. synops.* 1. p. 292. *Schult. syst. veg.* 7. p. 396.

Root bulbous. *Stem* in our plant about two feet high, solid, somewhat flexuose, leafy, faintly striate, nearly cylindrical, smooth and glossy; producing two flowers at the point, and a side branch a little below, bearing one flower: in the axils of the leaves are produced numerous bulbs. *Leaves* elongated, smooth, glaucescent, striated, tapering to a long slender point, channelled on the upper side and keeled below, sheathing the stem at the base: lower ones elongately linear, tapering to a long point: upper ones broader and shorter, more lanceolate, and dilated towards the base, all acuminate, but the slender point not so long: *bulbs* numerous in the axils of the leaves. *Peduncles* cylindrical, smooth. *Flowers* nodding, of a brownish purple on the outside and yellow within. *Perianthium* 6-parted, nearly to the base, the nectariferous pit spade-shaped, with two ears at the base, and an emarginate point: the three outer

leaflets about half the size of the inner, lanceolately oblong, acute, smooth, green marked with purple on the outside, and yellow with a purple spot on the inside: three inner ones oblong, obtuse, elegantly fringed round the edges, and bearing some rigid yellow and purple stiff hairs on the inside. *Stamens* 6; *filaments* smooth, inserted in the base of the perianthium: attached to the base of the anthers: *pollen* straw-coloured. *Ovarium* superior, smooth, oblong, 3-sided, 3-furrowed, many-seeded. *Stigmas* 3, nearly sessile, triangular, somewhat pointed, more or less spreading.

When we published *C. barbata*, at folio 273, of the former series, we mentioned that Mr. Tate was in possession of another species introduced from Mexico at the same time, and which we believed to be the present species, which proves correct; its habit is precisely that of the former species, even to bearing a number of small bulbs in the axils of the leaves, but the upper leaves are much broader, more glaucous, and the flowers are larger and of a finer colour; the nectariferous pit above the base on the leaflets of the perianthium, is also of a different form; the only thing in which it disagrees with M. Kunth's description, is, he describes it round, in which state it might probably appear in dried specimens; but we think there can be no doubt of its being the same species, particularly as his is named *purpurea*, and this is also ciliated at the margins, and not bearded as in *barbata*, as he describes it: its affinity to *CALOCHORTUS* is more apparent than in the other species.

The plant when in flower was about two feet high, and continued in full bloom several days: it was sent to us by the kindness of Mr. Tate, from his Nursery in Sloane Street, the first week of August last, who informs us that he received it with the other species from Mr. Peene, who imported them from Mexico: like the other species, it thrives best in a light sandy soil, and will succeed well in a warm border, planted from four to six inches deep, according to the size of the bulb; those may be taken up in Autumn after flowering, and kept dry, and out of the reach of frost, till the following Spring, to be planted again the latter end of March, or beginning of April, or before, if they are inclined to shoot; or if left in the ground all the Winter, they will require a little covering to secure them from too much moisture or very severe frost.

The generic name is derived from *κυκλος*, a circle, and *βοθρος* a well or pit, from the circular pit in each leaflet of the flower of the other species.



1. One of the inner leaflets of the Flower, showing the fringed edge, and the nectariferous pit above the base. 2. One of the smooth outer leaflets. 3. The 6 Stamens, the filaments attached to the base of the anthers, the filaments attached to the base of the Perianthium. 4. The three-sided Ovarium, that is deeply three-furrowed, and terminated by the three nearly sessile Stigmas.



1
Edinburgh Ed

2
T. & G. J. R. p. 169 Flora delly Nov 1825

3
Waddell & Co

UVULÀRIA pubérula.

Pubescent-stalked Uvularia.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. MELANTHACEÆ. *Brown prodr.* 1. p. 272.

UVULARIA. *Perianthium* 6-phylum, petaloideum, campanulatum; foliola unguiculata; unguibus fovea nectarifera excavatis. *Stamina* 6, basi foliolorum inserta. *Antheræ* posticæ. *Ovarium* trilocularis; loculis plurispermis. *Stylus* 1. *Stigmata* 3, recurva. *Capsula* trigona, 3-valvis: valvis medio septiferis. *Semina* plura, subglobosa, ad hilum arillata.

U. puberula, caule puberulo, foliis subamplexicaulibus lanceolato-ovatis ovalibusque acutis basi rotundatis utrinque concoloribus, foliolis perianthii acutis intus lævibus, capsula sessili.

Uvularia puberula. *Mich. fl. amer.* 1. p. 199. *Pursh amer.* 1. p. 232. *Lodd. bot. cab.* 1260. *Spreng. syst.* 2. p. 98. *Swt. hort. brit.* p. 428.

Roots creeping, producing several stems. *Stems* herbaceous, erect, more or less flexuose, leafy, forked, angular, clothed with a short pubescence, particularly on the branches, the points nodding. *Leaves* sessile, clasping the stem at the base; lower ones lanceolately ovate, acute: upper ones oval, rounded at the base, clothed with a short pubescence, of a pale green on both sides, longitudinally nerved, and veined with numerous slender veins, channelled on the upper side and keeled below. *Flowers* solitary, pedunculate, campanulate, of a yellow straw-colour. *Perianthium* of 6 leaflets, petal-like, the 3 outer ones rather longer than the inner ones: leaflets smooth inside, acute, the points slightly reflexed, bearing a nectariferous pore at the base on the unguis. *Stamens* 6, erect, inserted in the base of the unguis: *filaments* flat, attached to the anther their whole length: *anthers* linear, two-lobed, facing the leaflets; *pollen* yellow. *Ovarium* sharply three-sided, three-celled, the cells about 8-seeded. *Style* 1, erect, smooth, about the length of the stamens. *Stigmas* 3, long, and spreading, the points recurved.

Our drawing of this rare and pretty species was taken from fine specimens, sent to us by the kindness of Robert

Barclay, Esq. of Bury-hill, where it is grown in the open borders in peat soil, and succeeds well without any protection, though a native of Carolina; but as it is there a mountain plant, that will account for its hardy nature; it seems to be a scarce plant even in its native country, as we see Mr. Pursh, in his Flora of North America, gives a mark as having never seen it.

Several other species of this pretty genus are cultivated in Mr. Barclay's garden in the same situation, where they all succeed very well; and it appears that to be grown in a bed of peat soil, is the best way of cultivating them, for if grown in pots they are much weaker, and therefore do not show themselves to the same advantage: where peat cannot be readily procured, a mixture of very sandy loam and decayed leaves may be substituted instead, and will answer nearly as well; the less they are disturbed when once established the better, as it weakens them very much by moving them frequently: they may be increased by dividing at the root, or by seeds, which will ripen plentifully, if a little pains be taken to fertilize the stigmas with the pollen when in a proper state.

The generic name is framed from the diminutive of *uva*, a bunch of grapes, from the figure of the inflorescence, according to Linnæus.



1. The three outer leaflets of the Perianthium. 2. The three inner leaflets, the six stamens inserted, one in the base of each, just below the nectariferous pit. 3. Ovarium terminated by the Style and three spreading Stigmas. 4. Capsule nearly full grown.



Ed. J. M. H. Del.

Pub. by J. B. ...

W. H. ...

GEORGINA Cervantesii.

Cervantes' Georgina.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam.* 2. 103.

Subordo VI. HELIANTHÆE. *Kth. synops.* 2. p. 463.

GEORGINA. *Involucrum* duplex: exterius polyphyllum; interius octopartitum. *Receptaculum* planum, paleaceum. *Flosculi disci* tubulosi, hermaphroditi; radii ligulati feminei aut neutri. *Akenia* calva.—*Herbæ foliis oppositis, pinnatipartitis; floribus terminalibus, longe pedunculatis; radio purpureo, violaceo, lilacino, aurantiaco, coccineo, flavo et albo.* *Supra fol.* 282. series 1.

G. Cervantesii, caule ramosissimo; ramis gracilibus subsolidus scabriusculis nitidis, foliis inferioribus bipinnatis; superioribus pinnatis: rachi foliolum nuda, foliolis lanceolato-ovatis acuminatis serrulatis subtus pilosis margine glanduloso-scabris, involucri foliolis exterioribus rhombico-ovatis reflexis, akeniis spathulatis.

Dahlia Cervantesii. *Lagasca Mantissa inedit.*

Root perennial, producing numerous long tubers, unequal in size, attenuated at both ends. *Stem* erect, from 6 to 10 feet high, producing innumerable branches: *branches* very slender, hard and rigid, elongated, solid or nearly so, furrowed with numerous furrows, roughish, the roughness occasioned by numerous small warts or papillæ, of a glossy light purple colour. *Leaves* opposite, petiolate, the rachis slender and naked; lower leaves bipinnate; the upper ones simply pinnate or ternate: *leaflets* ovate, taper-pointed, or sometimes lanceolate, generally unequal sided and attenuated a little at the base, serrulate, the taper point entire, the teeth small, sharp-pointed, leaning inwards, pennately nerved and reticulately veined underneath, clothed with short rigid hairs; margins very rough, occasioned by numerous small gland-like hairs with which it is fringed: footstalks of the leaflets densely pubescent. *Petioles* slender, furrowed on the upper side and rounded below, widened at the base, where they are connected, green or sometimes tinged with purple. *Peduncles* slender, nearly cylindrical, rough, glossy. *Flowers* of a scarlet orange. *Involucre* of two series: outer series of 5 or 6 leaflets, that are rhomboidally ovate, acute, tapering to the base, striated, smooth and glossy, the margins roughish: inner series 8 to 10-parted, the segments spreading and supporting the rays, oblong, obtuse, striated with numerous faint lines, membranaceous, becoming fleshy at the base. *Receptacle* chaffy, the chaff similar to the inner

segments of the involucre, but narrower and thinner. *Rays* 8 or sometimes increased to 10, spreading, ovate, somewhat cupped, tubular at the base, sterile, producing no style or stigmas, or rarely an imperfect one, so that its seed is not perfect. *Florets of the disk* fertile, tubular, 5-toothed, the teeth erect, larger than in *G. crocata*. *Stamens* 5: *filaments* distinct, smooth: *anthers* connected into a tube. *Style* smooth, exserted. *Stigma* 2-parted, the segments very long, erect or a little spreading, very much fimbriate. *Akenia* or *seed* flattened, a little keeled on each side, spatulate, pubescent.

The present species was first pointed out to us as being very distinct, by our friend Don Mariano Lagasca, at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham, where our drawing was made; he informs us that he first received seeds of it at the Botanic Garden at Madrid, sent from Mexico by Cervantes, and described it in his *Mantissa*, which has never been published, owing to the troublesome times in Spain: it is readily distinguished from all the other species by its numerous slender branches, which are nearly solid: the spatulate seeds will also distinguish it at once from *G. crocata*, as well as the hollow fistulous stem of that species. According to Lagasca, the *G. coccinea* and *G. rosea* of Cavanilles, are also very distinct species: the *G. rosea* is readily distinguished from *G. variabilis*, to which it is nearly related, by its bipinnate leaves; we have seen a few plants of it this season, and some of them producing double flowers; we have also seen at Mr. Russell's Nursery at Battersea, a beautiful double variety of the present species. This species requires precisely the same sort of treatment as the more common sorts, to be taken up and kept dry and out of the reach of frost all the Winter, and to be planted again as soon as the weather permits in Spring, when it may be increased by dividing in several parts, or it may be raised from seeds, which ripen in abundance. We have already given our reason for adopting GEORGINA instead of DAHLIA, there being a genus DAHLIA established before by Thunberg, a native of the Cape of Good Hope.

The genus was named by Willdenow, in compliment to J. G. Georgi, a Russian Botanist, author of some valuable works on the botany of Russia. Dahlia was in compliment to A. Dahl, a Swedish Botanist.

1. Head split through the centre, to show the large chaffy scales on the Receptacle. 2. One of the florets of the disk, spread open to show the nerves alternating with the teeth. 3. The five stamens inserted in the tube, the filaments distinct and the anthers all connected. 4. Young Akenia terminated by the Style and bifid Stigma. 5. Base of one of the Rays.



Dianthus barbatus

Pub. by J. Ridgway, 169 Piccadilly Nov. 1829

Widdowson

DIANTHUS Balbisii.

Balbis's Pink.

Linnean Class and Order. DECANDRIA DIGYNIA.

Natural Order. CARYOPHYLLÆE. *Juss. gen.* 299.

Tribus I. SILENEÆ. Sepala coalita in tubum cylindraceum apice 4-5-dentatum. *DC. prodr.* 1. p. 351.

DIANTHUS. Calyx tubulosus 5-dentatus basi squamis 2-4 oppositis imbricatis. *Petala* 5 longè unguiculata. *Stamina* 10. *Styli* 2. *Capsula* unilocularis. *Semina* compressa hinc convexa inde concava, peltata. *Embryo* vix curvatus. *DC. prodr.* 1. p. 355.

Sect. I. ARMERIASTRUM. Flores capitati vel corymbosi, sessiles vel pedunculati.

§ 3. *Bracteis ovatis vel lanceolatis, calycibus vix striatis glabris.*

D. Balbisii, glaucescens, floribus subsessilibus capitato-fasciculatis, squamis calycinis lanceolatis patulis tubo paulo minoribus, foliis lanceolato-linearibus, caule angulato. *Seringe Mus. in DC. prodr.* 1. p. 356. n. 16.

Swt. hort. brit. ed. 2. p. 49.

Dianthus glaucophyllus. *Horn, ex herb. Balb. ex DC. loc. cit.*

Perennial. Stem slightly frutescent at the base, from 2 to 3 feet high, branching below, slightly angular, much knotted at the joints, and thinly clothed with a glaucous mealiness. *Leaves* opposite, linearly-lanceolate, acute, tapering a little towards the base, where they are connected, and sheath the stem a considerable way up, obsoletely 3-nerved, glaucous, spreading, the points generally reflexed or revolute, channelled on the upper side and keeled at the back, roughish at the edges. *Flowers* numerous, in a close, crowded, subdivided head, sessile, or nearly so. *Bractes* leaf-like, broad, and short. *Calyx* tubular, striated with numerous longitudinal lines, 5-toothed, the teeth lanceolate, erect, and tapering to a long slender point. *Scales* 4, surrounding the calyx at the base, lanceolate, taper-pointed and fimbriate, spreading, about the length of the tube of the calyx, inner ones rather longest, and dilated at the base. *Petals* 5, dark red, marked with three darker lines, broadly obovate, toothed, spreading: *unguis* broadish, keeled inward, the keel generally split down the centre, so as to make 2 keels. *Stamens*

10, 5 opposite to, and 5 alternate with the petals : *filaments* smooth, exserted, attached to the back of the anthers : *pollen* blue. *Ovarium* long, smooth, nearly cylindrical, tapering upwards, but blunt at the points. *Styles* 2, smooth, spreading, reflexed or revolute at the points, tapering to a slender point, stigmatose inwards nearly half their length, where they are bright purple and papillose.

Our drawing of this beautiful Pink was taken from plants at the Apothecaries' Company's Garden, at Chelsea, where Mr. Anderson raised it from seed, in 1827, under the name of *D. glaucophyllus* of Hornemann ; we have adopted that of Seringe, in Decandolle's Prodrômus, who named it after its discoverer, Balbis. It is a native of Genoa, is perfectly hardy, and well adapted for rock-work, in which situation it thrives well, and flowers abundantly at the Chelsea Garden, continuing in bloom from July till the latter end of October, if not stopped before by the cold weather setting in : it belongs to the tribe which bear their flowers in a close cluster, of which there are now several species described, the most of which are pretty plants, and well adapted for rock-work ; many of the species of this pretty genus are also very proper for growing on old walls, where they will thrive very well, if some seed be sown in Autumn in the crevices, and covered with a little earth ; the young plants will then come up, and establish their roots in the old mortar and moss, before the dry weather sets in the following Summer.

The present species strikes root freely, by young cuttings being planted under a hand-glass, in a shady border, or it may be raised from seeds ; but the different species of Pinks are so liable to mule together in Botanic gardens, that the seeds cannot always be depended upon, except the plants are grown in a situation by themselves, which those always should be, from which seeds are wanted to come true to their species.

The generic name is derived from *διος*, divine, and *ανθος*, a flower ; divine flower, or Jupiter's flower, from its great beauty and fragrance.



1. Calyx, surrounded by the four bractes at the base. 2. One of the Petals. 3. The 10 Stamens. 4. Ovarium, terminated by the 2 Styles, the points bearing the stigma on the inside, which is purple and papillose.



Hebe L.f.

Hebe L.f. *Hebe* L.f. *Hebe* L.f.

Hebe L.f.

ASCLEPIAS decumbens.

Decumbent Swallow-wort.

Linnean Class and Order. PENTANDRIA DIGYNIA.

Natural Order. ASCLEPIADEÆ. *Brown in Wern. trans. edinb.* 1. p. 12.

Tribus I. *ASCLEPIEÆ.* Pollinis massæ (10-20) cereaceæ læves, nec in granulis separandæ.

ASCLEPIAS. Supra fol. 18. series 2.

A. decumbens, caule subdecumbente apice divaricato-ramoso hirsutissimo, foliis sparsis oblongis obtusis mucronatis supra nitidis subtus hirsutovillosis reticulato-venosis; superioribus oppositis, umbellis multifloris lateralibus terminalibusque.

Asclepias decumbens. *Mill. dict.* n. 10. *Willd. spec.* 1. p. 1218. *Pers. syn.* 1. p. 276. *Schult. syst. veg.* 6. p. 84.

Asclepias tuberosa β. *decumbens.* *Pursh fl. amer. sept.* 1. p. 184.

Asclepias caule decumbente hirsuto, foliis ovatis obtusis villosis subsessilibus. *Gronov. virg.* 27.

Roots tuberous, fleshy. *Stems* several from the same root, somewhat procumbent or ascending, the upper part branching, densely clothed with short villous hairs: *branches* spreading, somewhat flexuose, villosely hairy. *Leaves* nearly sessile, rigid, oblong, obtuse, terminated in a short rigid mucrone, almost cordate at the base, the margin slightly bent back; glossy, but slightly hairy on the upper side; underneath thickly clothed with short villous hairs, feather-nerved, and reticulately veined; these on the main stem alternate or scattered, but those on the flowering branches generally opposite. *Petioles* very short, or scarcely any, villous. *Umbels* lateral and terminal, many-flowered. *Peduncles* short, villosely hairy. *Flowers* orange-coloured, very handsome. *Involute* of numerous small bractes, that are lanceolate, acute, villous, and fringed. *Pedicels* hairy, thickened a little close to the flower, of a pale yellow, tinged with flesh colour. *Calyx* deeply 5-cleft, persistent; the segments broadly lanceolate, acute, hairy. *Corolla* deeply 5-parted; the segments oblongly ligulate, bluntish, reflexed, the points ascending a little, smooth on both sides, the inside of much the deepest

and brightest colour. *Stamineous crown* of 5 upright leaflets, hollow on the inside, fleshy, of a bright glossy orange colour, each producing a subulate horn, from a little above the base, on the inside, the point of which bends inwards. *Stamens* 5, alternate with the segments of the corolla, connected at the base, and to the stamineous crown: *anthers* winged, close pressed to the style, when burst attached by the pollen to the stigma. *Ovariums* 2, smooth. *Styles* 2, distinct, smooth, connected at the point by a large 5-angular fleshy stigma, hollow at the point.

The present handsome plant is a much scarcer species in our collections than *A. tuberosa*, to which it is nearest related; it is also more beautiful, the flowers being larger, and the umbels produced in more abundance than in that species; we have not the least doubt but it is sufficiently distinct to rank as a true species, as it has generally been supposed to be by all botanists, except Pursh, who probably had not the present plant in view; its oblong blunt leaves, with a glossy upper surface, and its lateral umbels of flowers, and decumbent habit, at once readily distinguish it. In Messrs. Whitley, Brames, and Milne's Nursery, at Fulham, where our drawing was made, it was planted in a border in the common garden soil, where it was thriving most luxuriantly, much more so than *A. tuberosa*, of which many plants were growing near it; we believe it would still grow stronger, and produce larger umbels of flowers, if grown in peat soil, as we have noticed that most of the species of this genus thrive better in peat than in the common soil; in favourable seasons it will produce seeds, which is the best way of increasing it, as it weakens the plants considerably by dividing the roots. Pursh mentions it as growing in barren fields of Carolina, flowering in June and July; with us it flowers from the latter end of June to the middle of September.

For the derivation of the generic name, see folio 18 of the present series.



1. Calyx. 2. Corolla spread open, divested of all the other parts. 3. Stamineous crown of 5 leaflets, tubular at the base, and each producing a subulate horn on the inside, where they first become open. 4. The 5 winged Stamens. 5. The 2 Ovariums and Styles, the points of the Styles cut through, to show how they are joined by the large 5-angular fleshy Stigma.



1. Calyx del.

Pub. by J. Bidgway 169 Piccadilly Dec. 1829.

P. 172 del.

FUCHSIA thymifolia.

Changeable-coloured Fuchsia.

Linnean Class and Order. OCTANDRIA MONOGYNIA.

Natural Order. ONAGRARIÆ. DC. *prodr.* v. 3. p. 35.

Tribus II. *FUCHSIEÆ*. Fructus baccati. Calycis tubus suprâ ovarium productus.—Arbores aut Fructices omnes Americani, oppositifolii.—Tribus ad Myrtaceas habitu accedens.

FUCHSIA. Supra fol. 16. series 2.

Sect. I. *QUELUSIA*. Calycis tubus cylindraceus aut obconicus suprâ ovarium attenuatus aut constrictus. Ovula in quoque loculo biseriata. Folia opposita aut verticillata rarissime subalterna.—Fructices Americani.

F. thymifolia, ramis elongatis virgatis pubescentibus, foliis ovatis acutiusculis integerrimis v. subdenticulatis basi rotundatis opacis penninerviis utrinque subpubescentibus, pedicellis axillaribus simplicibus petiolo longioribus, calycis lobis reflexis, petalis cuneatis subtrilobis expansis, stigmate crasso quadrilobo.

Fuchsia thymifolia. *Humb. Bonpl. et Kth. nov. gen. et spec.* 6. p. 104. t. 535.


Kth. synops. 3. p. 394. DC. *prodr.* 3. p. 37.

A handsome branching shrub; the one from which our drawing was taken, was about three feet high, and much branched: *branches* slender, elongated, a little compressed, of a reddish purple, densely clothed with a short thin pubescence. *Leaves* opposite, or rarely somewhat alternate, ovate, rounded at the base, generally acute, but some rather bluntish, entire, or rarely producing a few gland-like teeth, of a pale opake green, clothed on both sides with a short pubescence, fringed at the margins, underneath of a paler colour, horizontally spreading. *Petioles* rather long, and very slender, furrowed on the upper side, and convex below, densely pubescent. *Flowers* axillary, solitary, of a pale blush or lilac when first expanded, soon changing to a bright red, and dying off deep crimson. *Peduncles* slender, pubescent, nodding, a little longer than the petioles. *Ovary* below the flower, nearly globular, glossy, but pubescent. *Calyx* tubular, turbinate, slender at the base and widening upwards, pubescent: *limb* 4-cleft, the segments broad at the base, tapering to a long slender point, reflexed. *Petals* 4, inserted in the mouth of the calyx, wedge-shaped, lobed or notched at the point, spreading flat open, a little longer than the segments of the calyx. *Stamens* 8, four inserted in the mouth, opposite to the segments of the calyx, and slightly exserted: the other four a little lower down the tube, opposite to the petals: *filaments* very short, attached to the back of the anthers, a little above the base: *anthers* ovate before bursting. *Style* smooth, white, much

slenderer at the very base, a little exserted. *Stigma* of four thick spreading lobes, of a white colour, and papillose.

For this pretty species of *Fuchsia*, we are indebted to the never failing source of novelty at the gardens of Robert Barclay, Esq. of Bury Hill, in whose collection it was raised from seed, received from Mexico the Spring of the present year; and from specimens received from thence in October last, our drawing and description was made. Mr. Cameron informs us, that the plant from which the specimens were procured, was planted out in the border of the garden, where it had attained the height of three feet, producing numerous branches, and that it had then been in flower for three months. Like most of the other Mexican species of this interesting genus, there is not the least doubt but it will endure our Winters, in the open border, with the protection of a mat, or some slight covering, to keep the shoots from being killed back in severe frosty weather, but to be exposed to the air as much as possible when the weather is mild, that the wood may become hardened; if not intended to be covered up at all, the roots should be planted deep in the ground, and as Winter comes on, the mould should be raised up considerably against the branches, and squeezed tight against them, to exclude all air; if the upper branches are then killed, it will break up strong again from the root in Spring, and soon make a strong plant, though it will not flower quite so soon as if the old shoots were preserved alive; but the flowers are generally larger and finer, as we have often observed in *F. coccinea*, *F. gracilis*, and *F. conica*. It is certainly worth a little trouble, (particularly for those who have no greenhouse,) to preserve some of those curious and beautiful plants, in the borders of the Flower Garden: all the perennial, or low growing plants, from Mexico, Chili, Peru, Nepal, or New Holland, we find will endure the severest of our Winters, with no other covering than a common garden pot placed over them in severe frosty weather. The hole at the bottom, of course, must be closed; they keep much better this way than under hand-glasses, or frames, and are not so liable to damp off. We have now *Alstræmeria Simsii*, and *A. hirtella*, that have stood several Winters with us in the open border, with several Cape and South American bulbs, and no other covering but a single mat, in the most severe frost.

For the derivation of the generic name, see fol. 16.



1. Calyx, the tube spread open, showing the four segments. 2. The same spread open, divested of the segments, showing the four Petals inserted in the mouth, and the eight Stamens, four alternate with the petals, and exserted; the others opposite to them and placed below them. 3. Ovarium terminated by the Style, and four-cleft fleshy Stigma.



D. Nutt.

Abby's Runway 169 from Nutt. 2nd ed.

Nuttall's

NOCCA rigida.

Rigid-leaved Nocca.

Class & Order. SYNGENESIA POLYGAMIA SEGREGATA.

Natural Order. COMPOSITÆ. Adanson fam. 2. 103.

Subordo. V. *ECHINOPSIDEÆ*. Kth. in Humb. et Bonpl. nov. gen. et spec. 4. p. 24.

NOCCA. *Flores* capitati bracteati. *Involucra propria* monophylla, 4-5-dentata, uniflora. *Achenia* involucro arcuè obvoluta, pappo urceolato membranaceo fimbriato coronata. D. Don Mss.

Flores capitati, bracteis 4 v. pluribus foliaceis involucrati. *Receptaculum commune* scrobiculatum: *scrobiculis* fimbriatis. *Involucra propria* monophylla, tubulosa, uniflora, limbo 4-5-dentata. *Flosculi* hermaphroditi, tubulosi, 5-dentati, fauce dilatata. *Filamenta* superne libera, canaliculata, papillosa. *Antheræ* in tubum coalitæ, basi obtusè bidentatæ; appendiculâ ovatâ membranaceâ marcescenti coronatæ. *Stigmata* filiformia, obtusa, revoluta, undique cum apice styli densè papillosa. *Achenia* lineari-cuneata, compressa, lævia, involucro arcuè obvoluta, cujus limbo 4-5-dentato persistente, quasi pappo paleaceo, coronata. *Pappus proprius*: coronula brevissima, membranacea, laciniata, densè ciliata, discum epigynum prominulum truncatum circumcingens.—Frutices (Mexicani) *scabri*. Folia *opposita, simplicia*. *Capitula terminalia*. *Flosculi succulenti, subitè marcescentes, albi v. purpurei, extus pubescentes*. D. Don Mss.

N. rigida, foliis petiolatis ovato-lanceolatis dentato-serratis triplinerviis, capitulis villosis multibracteatis. D. Don Mss.

Nocca rigida. *Cavan. icon.* 3. p. 12. t. 224. *Willden. sp. pl.* 3. p. 2394.

Pers. synops. 2. p. 498.

Lagascea rubra. *Kth. in l. c.* 4. p. 24. t. 311.

Caulis fruticosus (plantæ viridario cultæ) 4-6-pedalis, erectus, ramosus, rigidus, cortice badio vestitus. *Rami* numerosi, stricti, obsoletè hexagoni, adpressè pilosi, parùm asperi, obscurè purpurascens. *Folia* opposita, s. nunc rariùs terna v. alterna, petiolata, ovato-lanceolata, acuta, dentato-serrata, (dentibus brevissimis apice callosis) rariùs parcè dentata aut integerrima, rigida, triplinervia, reticulato-venosissima, margine paululùm reflexa, basi acutà; suprâ setulis copiosissimis incumbens, basi callosis, scabra, subtùs adpressè pilosa, subsericea, nitida, 2-4-uncialia, pollicem v. sesquipollicem lata; *superiora* basi obtusa, sæpiùs integerrima; *inferiora* obtusiuscula. *Petioles* brevissimi (vix 4 lineas longi,) suprâ canaliculati, subtùs convexi, margine ciliati, basi dilatata connati, quandoque supremis foliis alati. *Capitula* 3-7, terminalia, glomerata. *Bracteæ* plures, lanceolatæ, acuminatæ (puncto calloso,) integerrimæ, triplinerviæ, basi angustiori, concavâ. *Receptaculum commune* scrobiculis ciliato-villosis. *Involucra propria* monophylla, tubulosa, uniflora, apice 5-dentata (dentibus inæqualibus, lanceolatis, erectis, plumosis), membranacea, extùs sericeo-villosissima. *Flosculi* hermaphroditi, tubulosi, dilutè purpurei, parùm succulenti, subitè marcescentes, longitudine semunciales, pubescentes: *tubus* angustus, cylindricus: *fauces* dilatato-ventricosa, tubo longior:

limbo 5-dentato, albo, patenti : laciniis ovato-oblongis, mucronulo rubro apiculatis : *nervis* tantum primariis, intramarginalibus. *Filamenta* angusta, canaliculata, minutissimè papillosa, incurva, infra tubo adhærentia. *Antheræ* fuscæ, in tubum coalitæ, basi obtusè bidenticulatæ ; appendiculâ ovatâ, acutâ, membranaceâ, marcescenti coronatæ. *Stylus* filiformis, apice papillosus. *Stigmata* filiformia, longissima, revoluta, dense papillosa, suprâ planiuscula. *Achenia* lineari-cuneata, compressa, fusca, lævia, involucro arcuè obvoluta. *Pappus proprius* : coronula brevissima, membranacea, laciniata, densè ciliata ; *laciniis* 2 *oppositis* elongatis, erectis, plumosis. *D. Don. Mss.*

“ A native of Mexico, whence it was introduced to the Royal Botanic Garden of Madrid, where it blossomed for the first time in December, 1794, and a figure of it was published by the Abbe Cavanilles, in the third volume of the ‘ *Icones Plantarum.*’ M. Kunth, certainly not aware of its having been previously published, has given a description and figure of it, under the name of *Lagascea rubra*. It flowered in the Winter of last year, in the greenhouse, at Boyton House, Wilts, whence our figure was derived : it was raised together with the *N. latifolia*, given at t. 215 of the first series of this work, by Mr. Lambert, from seeds received from Mexico. The *N. rigida*, when planted in a warm situation, or at a wall, appears to be sufficiently hardy to endure our Winters, in the open air. *Lagascea* and *Nocca* are very closely allied, but they appear to me sufficiently distinct to entitle them to rank as separate genera. The former is distinguished by the involucre being uniformly quadrifid, and not adherent to the ovary, which is surmounted by a very small depressed epigynous disk, and destitute of the membranous crown, being only furnished with short pubescence.”

“ I have followed M. Kunth in referring these genera to *Echinopsideæ*, of whom they appear to me to constitute an osculant group, connecting that family with the *Heliantheæ*.”

For the whole of the above account we are indebted to our respected friend, Mr. David Don, who has long been engaged in arranging the South American and Mexican *Compositæ*, and from whom we may soon expect an interesting paper on this most difficult family. The flowers of the present plant are very fragrant, and Mr. Lambert informs us, that a plant which was planted in the open border, by the side of a wall, soon attained the height of ten feet, and only needs the protection of a mat in severe frost, thriving well in the common garden soil ; young cuttings, planted under hand-glasses, in Spring, will be rooted in a few days.

The genus was named by Cavanilles, in compliment to Dominicus Nocca, an Italian Botanist, and author of many botanical publications.



1. One of the outer bractes. 2. The tubular Involucre, inclosing the floret. 3. The same split open, showing the 5 unequal teeth. 4. Floret spread open, showing the nerves alternating with the teeth. 5. Lower part of the tube, showing the insertion of the 5 stamens, the filaments distinct, the anthers connected into a tube, but here laid open ; at the base of each is a small tooth on both sides. 6. Akenia or seed, terminated by the Style and 2-cleft Stigma.



Fideb. 1842.

Pub. by J. P. Rogers, Dec. 1842.

W. & A. 1842.

DIANTHUS pubescens.

Pubescent Pink.

Linnean Class and Order. DECANDRIA DIGYNIA.

Natural Order. CARYOPHYLLÆ. *Juss. gen.* 299.

Tribus I. SILENÆ. Sepala coalita in tubum cylindraceum apice 4-5-dentatum. *DC. prodr. v. 1. p. 351.*

DIANTHUS. Supra fol. 23. series 2.

Sect. II. CARYOPHYLLUM. Flores paniculati vel solitarii.—§ 1. *Petalis dentatis.*

D. pubescens, viscido-pubescent, caule ramosissimo paniculato; ramis unifloris squamis calycinis binis basi ovatis apice subulatis tubo subæqualibus, calycibus striatis villosis glutinosis, foliis laxis striatis apice subulatis, petalis supra barbatis.

Dianthus pubescens. *Smith in Flor. græc. t. 397. Prodr. fl. græc. 1. p. 286.*

DC. prodr. v. 1. p. 355. Spreng. syst. v. 2. p. 377.


All over thickly clothed with a short dense pubescence, very much branched; the branches opposite, innumerable and crowded, erect or somewhat spreading, the small branches spreading round in all directions, and each terminated with a single flower, so that they can scarcely be termed aggregate, of a rough feel, occasioned by the short rough pubescence: stems somewhat angular, hispidly pubescent. *Leaves* opposite, spreading, striate, terminated in an awl-shaped point, but broadest at the base; the lower ones much broader, becoming gradually narrower upwards. *Flowers* terminal, numerous, but all on single stems, which when short as on a stunted plant, gives an appearance of being somewhat aggregate. *Calyx* tubular, longitudinally striate, somewhat clammy, and densely clothed with a short pubescence, terminated in 5 sharp subulate teeth. *Scales* or *bractes* 2, surrounding the calyx at the base, striated, ovate at the base, somewhat membranaceous at the edges, and terminated in a long subulate point, about the length of the tube of the calyx, or sometimes scarcely as long. *Petals* 5, spreading flatly open, the unguis about the length of the tube: lamina flat, notched at the ends, bearded a little on

the upper side, which is of a bright red, with numerous small white spots on the lower part, the back of a yellowish green. *Stamens* 10, five inserted in the base of the petals, and 5 alternate with them surrounding the *ovarium*: *filaments* slender, smooth, attached to the back of the anthers, which are sagittate at the base. *Ovarium* smooth. *Styles* 2, slightly glandular, terminated in a fimbriate stigmatose point.

Our drawing of this interesting and beautiful species of Pink, was made from fine specimens kindly sent to us from the collection of Messrs. Young, at Epsom, who inform us that they received the seeds from which the plants were raised from their late friend Colonel Mitchell, to whom they had been brought from Smyrna; we have compared our specimens with the figure in *Flora Græca*, with which they entirely correspond, even to the spots on the petals, only in that figure the calycine scales are not so long as in ours, though they are of the same form, scarcely reaching above the middle of the tube of the calyx, except in one flower, where they are nearly as long as in ours, which extend to the end of the tube; we had no opportunity of comparing it with the original specimens, as there were none in the collection of the late Sir J. E. Smith, now preserved in the Linnean Society's collection, but we have no doubt but it is the same species; whether the one of D'Urville in Decandolle's *Prodromus*, be the same species, we are not so certain, as it is there placed in his section *ARMERIASTRUM*, which are those species with close aggregate flowers, such as *D. Balbisii* in our last number.

We received no information with the specimens, whether it was an annual or perennial; but from their appearance we should judge it to be the latter; it is certainly a most superb plant from its abundance of flowers, which, from their coming regularly in succession, will continue from Midsummer till late in Autumn; and from the appearance of the specimens we should suspect it has ripened seeds, which may be raised in pots, and transplanted into the open borders, in the common garden soil.

For the derivation of the generic name, see fol. 23.



1. Calyx, surrounded by the two long scales at the base. 2. Petal, showing the bearded limb, with one of the Stamens attached to the base. 3. The other 4 cut off a little above the base, to show where the Stamens are attached. 4. The other 5 Stamens that are alternate with the petals, and are inserted on the receptacle, surrounding the ovarium. 5. Ovary terminated by the two Styles.



L. Smith del.

Ass by J. Dalrymple 169 Piccadilly Dec 1829.

L. Smith del.

OROBUS variegatus.

Variegated Bitter-Vetch.

Linnean Class and Order. DIADELPHIA DECANDRIA.

Natural Order. LEGUMINOSÆ. DC. *prodr.* 2. p. 93.

Subordo I. PAPILIONACEÆ.—Tribus IV. VICIÆ. *Supra fol.* 194.

OROBUS. *Calys* campanulatus 5-fidus; lobis 2 superioribus brevioribus. *Corolla* papilionacea. *Stamina* diadelphea. *Stylus* gracilis linearis apice villosus. *Legumen* cylindraceum, oblongum 1-loculare bivalve polyspermum. *Semina* hilo lineari.—Herbæ erectæ. *Stipulæ* semisagittatæ. *Petioli* in setam brevem simplicem desinentes. *Folia* abruptè pinnata paucijuga. *Racemi* axillares pedunculati. DC. *prodr.* 2. p. 376.

§. 2. *Foliis multijugis, foliolis latis, stipulis folio multò minoribus.*

O. variegatus, caule simplici flexuoso, foliis 2-3-jugis: foliolis late-ovatis acuminatis pilosiusculis, stipulis ovato-semisagittatis integerrimis acutis foliolis multò minoribus, pedunculis multifloris folium subæquantibus, laciniis calycinis angustis acutis, leguminibus compressis striatis polyspermis, stylis rectis, seminibus subcompressis fulvis.

Orobus variegatus. *Tenor. catal. pl. hort. reg. neap.* 1813. p. 73. *Prodr. suppl.* 1. p. 62. *Synops. nov. pl.* p. 57. *Flor. napol.* t. 68. DC. *prodr.* 2. p. 377. *Lodd. bot. cab.* 1168. *Swt. hort. brit.* p. 126. *edit.* 2. p. 156. n. 8.—*Columna phytob.* p. 59. t. 14.

A handsome herbaceous perennial. *Stems* numerous from the same root, from a foot to 18 inches high, simple, flexuose, growing erect or ascending, triquetrous, slightly winged, nearly smooth, but clothed with a few spreading hairs. *Leaves* pinnate, with 2 or 3 pair of leaflets; *petioles* clothed with short hairs, most numerous in the axils of the leaflets; channelled on the upper side and rounded on the lower, terminated beyond the leaflets in a narrow, lanceolate, acute point: *leaflets* nearly sessile, broadly ovate, oblique, rounded at the base, taper-pointed, smooth and glossy, but bearing a few short hairs, slightly fringed at the edges, pennately nerved with strong nerves, that are much branched. *Stipules* broadly ovate, obliquely cordate at the base, sometimes semisagittate, taper-pointed, entire, much veined, the veins branching, the margins fringed with short hairs. *Peduncles* axillary, about the length of the leaves, nearly cylindrical, slightly pubescent. *Racemes*

many-flowered, densely crowded. *Flowers* all facing to one side, of a bright purple lilac, striped and netted with darker bright purple, becoming at last of a greenish blue. *Pedicles* short, hairy. *Bractes* at the base of the pedicles, very small, awl-shaped. *Calyx* tubular, rounded at the base, two-lipped, pubescent: upper lip very short, terminated in two short, broadish, acute teeth or segments: lower one bearing three narrow taper-pointed segments, the middle one narrowest. *Vexillum* obcordate, retuse, narrowing to the base, bearing two scale-like processes, where it clasps the wings, and indented a little at the back. *Wings* unguiculate, each broadly eared on one side. *Keel* about the length of the wings, acute, sharply keeled, a little inflated, unguiculate and eared on each side. *Stamens* 10, diadelphous, one distinct and 9 united. *Ovarium* flat, pubescent. *Style* narrow, linear, villous near the point on the under side. *Stigma* a simple sharp point. *Pod* flat, striate, many-seeded. *Seeds* flattish, oblong, flattened at both ends, of a light yellowish brown colour, and not spotted.

This handsome Spring flowering plant is well deserving a place in every collection of hardy plants, as it comes into flower soon after its near ally *O. vernus*, bearing a succession of flowers through May to the beginning of June, though the time of its flowering depends a good deal on the forwardness of the Spring; after flowering, it is succeeded by abundance of ripe seed-pods, so that it is readily increased; and it only wants to be better known to be in general cultivation, needing no care but to be planted in the open border, and to be kept clear from weeds.

Our drawing was made from a fine plant in the garden belonging to the Apothecaries' Company at Chelsea.

The generic name is derived from *ορω* to excite, and *βους* an ox, from its herbage being good for cattle.



1. Calyx. 2. Vexillum. 3. The two wings. 4. Keel. 5. The 10 Stamens, 9 united into a tube, but distinct at the points, the tube spread open. 6. Ovarium terminated by the Style and acute Stigma. 7. Ripe Pod.



Ed. Smith del.

Pub. by J. Ridgway 169 Piccadilly, Jan. 1830.

Waldell sc.

GAGEA minima.

Small Gagea.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. ASPHODELEÆ. Brown prodr. 1. p. 274.

GAGEA. *Perianthium* 6-partitum, subæquale, patens, persistens. *Stamina* 6: *filamenta* basi perianthio inserta, angusta, planiuscula, erecto-divergentia: *antheræ* lineares, strictæ, basi insertæ. *Ovarium* superum, triloculare, trivalve. *Stylus* in plerisque clavatus. *Stigma* triloba, fimbriata. *Semina* parva, numerosa, subrotunda.—*Plantæ gramineæ facie* Hypoxidum. *Radix parva, bulbosa.* *Folia pauca, obtuse mucronata, plus minus villosa.* *Flores lutei corymbosi.* *Pedunculus angulatus, plus minus decompositus ramis sæpius brevissimis pedicellis longis.* *Bracteæ ad ramos solitariae præter alias interdum inferius sparsæ, foliaceæ.* Genus ante cum *Ornithogalo confusum, in quo perianthio cito marcescit et inflorescentia longe diversa.* Supra fol. 158. series 1.

G. minima, bulbo solitario nidulante ovato, folio radicali solitario lineari-filiformi erecto apice incurvo glabro; florali subspathaceo lanceolato remoto, umbellâ pauciflorâ pedunculatâ, bracteis ciliato-pilosis, pedunculis ramosis simplicibusve, foliolis perianthii lanceolatis acuminatis glabris.

Gagea minima. *Swt. hort. brit. p. 418. Schult. syst. v. 6. p. 539.*

Gagea stellaris. *Salisb. in ann. bot. v. 2. p. 556.*

Ornithogalum minimum. *Linn. fl. suec. p. 107. n. 286. Spec. pl. 440. (excl. syn. Bauh.) M. Bieb. fl. taur. cauc. 1. n. 875. suppl. p. 265. Flor. dan. t. 1331. Svensk bot. t. 494. f. 1.*

Ornithogalum Sternbergii. *Henck. et Donners. adumb. p. 227. Hopp. bot. zeit. 1806. p. 339. c. tab. 1807. p. 104. 1819. p. 35. T. II. p. 613. Sturm. deuts. fl. 23. H. Bess. enum. pl. volh. p. 14. et p. 56. Schult. Oestr. fl. 1. p. 558.*


Bulb small, solitary, or producing a few offsets, not growing in large clusters, as in *G. fasciculâris*, ovate, scarcely so large as a large pea, clothed by a brown shell, producing numerous very slender fibres at the base. *Leaf* one, from each bulb, erect, the point curved a little inwards, smooth, a little longer than the scape, narrowly linear, or filiform, channelled on the upper side, and slightly keeled at the back, of a glossy green, generally tinged with purple towards the base, where it becomes attenuated, particularly if the bulb is deep in the ground, it is then much attenuated and of a white colour, point acute, 4 to 6 inches in length, and a half to one and a half line in breadth: *stem-leaf* broadly lanceolate, acute, the point generally somewhat recurved, attenuated a little towards the base, where it clasps and sheaths the stem, at some distance below the umbel, smooth or fringed with a few long straggling crooked hairs towards the base. *Scape* 3 to 4 inches in length, slender, smooth, gene-

rally bent a little, tapering to the base. *Umbels* 1 to 8-flowered, according to the strength of the bulbs, in the 8-flowered umbels the stem-leaf is much larger and longer. *Peduncle* 3 to 6 lines in length, supporting the more or less branched umbel. *Pedicles* simple, or often branched on the strong plants, slender, unequal in length, round, smooth, or clothed here and there with loose crooked hairs. *Bractes* narrowly linear, tapering to both ends, thickly fringed with crooked hairs, and slightly keeled at the back. *Flowers* erect, when the scape is upright, otherwise more or less bent, at first nodding a little, inside of a bright yellow, outside of a yellowish green. *Perianthium* 6-cleft; the leaflets nearly equal, upright at the base, the upper part stellately spreading, linearly lanceolate, 3-nerved at the base, tapering to a long slender point, hairy at the base. *Stamens* 6, inserted in the base of the perianthium below the leaflets, every other one longest: *filaments* slender, smooth, attached to the base of the anthers: *anthers* ovately oblong, two-lobed, the lobes extending a little way down on each side the filament. *Ovarium* three-sided. *Style* smooth, slightly 3-sided. *Stigma* three-lobed.

The present pretty little Spring flowering plant has caused a good deal of confusion amongst botanists, many supposing it to be a distinct species from the Linnæan plant; we are therefore glad of an opportunity to clear up all doubts, from a comparison of two well preserved specimens in the Linnæan herbarium, marked in Linnæus's own hand-writing.

The plants from which our drawing was made, at the Nursery of Mr. Colvill, were received from Mr. Schleicher, of Bex, who collected them in Switzerland, and sent them under the name of *Ornithogalum Sternbergii*: it may be considered a very valuable plant, on account of its early flowering, which is about the same time as the Snowdrop and Crocus, making a variety at the season that it is most needed, and expanding its bright little starry flowers to the sun; those close up every evening, and expand again at the sun's approach; a border in a southern aspect is the best to plant it in, as the flowers will then appear earlier, and expand sooner of a morning; a light sandy soil suits it best, and it increases by offsets from the bulbs, or by seeds.

The genus was first named by Mr. Salisbury in the Annals of Botany, in compliment to Sir Thomas Gage, a great amateur of botany.



1. Two of the leaflets of the Perianthium, showing their hairy base. 2. The 6 Stamens inserted in the base of the Perianthium, below the leaflets, which are taken off. 3. Ovarium slightly 3-sided, and terminated by the three-lobed Stigma.



A. D. Smith. Del.

Red by J. Redway 189. Recoloured Jan. 1890.

Wm. Bell. Sc.

CALÁMPELIS scábra.

Rough-podded Calampelis.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.

Natural Order. BIGNONIACEÆ. Brown prodr. 1. p. 470.

CALÁMPELIS. *Calyx* campanulatus, semiquinquefidus. *Corolla* fauce ventricosa, basi tubulosa: ore coarctato, 5-lobo. *Stamina* 4, didynama, fertilia; quinti rudimenti brevissimo. *Antheræ* biloculares, bipartitæ: *lobis* obtusis, divaricatis apice distinctis. *Ovarium* placentis intervallo distinctis uniloculare. *Stigma* bipartitum; *segmentis* obtusis, canaliculatis, apice hispidulis. *Capsula* unilocularis, bivalvis: *valvis* medio placentiferis. *Placentæ* 2, magnæ, carnosæ. *Semina* horizontalia, obovata, imbricata, compianata: *âla* latiusculâ repando-sinuosâ, membranaceâ, argenteo-nitidâ, subpellucidâ pulcherrimè nervosâ, basi emarginatâ circumcincta: *testa exterior* atra, crustacea, rugulosa, parùm scrobiculata: *interior* tenuissime membranacea: *albumen* nullum. *Embryo* luteolus: *cotyledones* orbiculatæ, plano-convexæ, non foliaceæ: *radicula* crassa, brevissima, cotyledonibus triplo brevior, infera, centripeta, basi obtusissima, funiculo umbilicali partim remanente.—*Planta* (Chilensis) *suffruticosa, scandens*. *Folia opposita, petiolata, bipinnata*, cirrho *composito spirali terminatâ*: pinnis primariis *bi-jugis*: foliolis serratis. Flores *racemosi secundi*. Racemus *oppositifolius, pedunculatus, multiflorus*. *Calyx brevis, viridis*. *Corolla coccinea*. *Capsula magna, muricata*. D. Don in Edinb. new philos. journ. June. 1829. p. 89.

C. scabra, foliis bijugis pinnatis cirrhiferis: foliolis oblique cordato-ovatis subserratis integerrimisve, racemis elongatis multifloris, floribus secundis. *Eccremocarpus scaber*. Ruiz et Pavon. *syst. veg. flor. peruv.* p. 157. *Pers. synops. v. 2. p. 173. Botan. regist. t. 939. Spreng. syst. veg. v. 2. p. 836.*

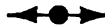
Stem climbing, and supporting itself by the tendrils at the ends of the footstalks of the leaves, becoming frutescent and somewhat woody at the base, clothed with a rugged corky bark, producing numerous branches, which extend to a great length, and are supported by the tendrils fixing to any other plant, or whatever is within their reach that they can lay hold of. *Stems* tinged with purple, acutely angular, the angles varying in number on different branches, but generally from four to six; thickly clothed with short stiff pellucid hairs when young, afterwards becoming smooth. *Leaves* opposite, petiolate, producing two pair of pinnated leaflets, and terminated by a much branched tendril: *leaflets* alternate, petiolate, ovate, obliquely subcordate at the base, very unequal-sided, and more or less toothed with bluntish teeth, or sometimes entire, glossy, but thickly clothed with short glandular hairs on both sides, the upper side and edges covered with

minute tubercles, which occasions a slight roughness. *Tendrils* much branched, the branches many times forked, and terminated in little hooks at the end, which catch hold of all within their reach, and soon become entangled in an inextricable mass. *Petioles* channelled on the upper side, thickened and widened a little at the base, clothed with numerous short glandular hairs when young, becoming smooth by age. *Racemes* opposite to a leaf, many-flowered. *Flowers* inflated, of a pale orange colour. *Bractes* small, lanceolate, broad at the base, and tapering to a slender point, about one third the length of the peduncle. *Peduncles* glossy, tinged with purple, thickly clothed with short rigid pellucid hairs that are terminated with little glands at the point, as are those on every other part of the plant. *Calyx* campanulate, 5-cleft, 5-keeled, the keels terminating at the points of the segments, hairy: *segments* lanceolate, taper-pointed, spreading. *Corolla* tubular, contracted at the base, and inflated from about the middle, the point cleft into 5 short broad acute segments, that soon become reflexed, so as scarcely to be seen, the outside covered with the same short rigid glandular hairs as the other parts of the plant. *Stamens* 4, didynamous, or two longer than the others, with the rudiment of a fifth, all included within the tube, and inserted in it where it first becomes inflated. *Filaments* smooth, thickest at the lower part, and tapering upwards, inserted between the two lobes of the anthers. *Anthers* two-lobed, nodding, the lobes divaricate, densely clothed at the back with short glandular hairs. *Nectarium* thick and fleshy, bowl-shaped. *Ovarium* pubescent. *Style* glossy, bearing here and there a few glandular hairs. *Stigma* two-lobed, the lobes connivent.

The present genus was very properly distinguished by Mr. D. Don, from the other two species of *Ecchremocarpus*; from which it is readily recognised at first sight, by its inflated flowers, and the divaricate lobes of its anthers: in the two true species of that genus, the tubes are cylindrical, and the anthers linear, besides other distinctions.

As the present handsome plant is such a fine ornament all through the latter end of Summer and Autumn, we thought it certainly deserving a place in our publication, as it makes a fine appearance when trained against a wall or trellis, and is covered with its long racemes of brilliant flowers, as the one was from which our drawing was made, at the Nursery of Mr. Joseph Knight, in the King's-road, where a small plant had been turned out in the open border at the end of the Greenhouse in Spring, and in October had entirely covered the end, and was rambling on the lights of the house, covered with hundreds of long racemes of flowers; and now, the middle of December, it is still thriving in the same situation, without protection, though we have already had several severe frosts: it certainly ought to be in every collection, where there is a convenience for training it up; a slight covering in the severest frost will secure it well through the Winter, or if not protected, and killed to the ground, it will shoot up the following Spring, and grow and flower as freely as before, but of course rather later; it is readily increased by young cuttings, planted under hand-glasses, or by seeds, which ripen in abundance.

The generic name is derived from *καλός*, fair or beautiful, and *αμπελός*, a vine: a beautiful vine.



1. Calyx. 2. Corolla spread open, to show the insertion of the four fertile Stamens, and the short barren one. 3. Stamen detached, to show the glandular hairs at the back of the anther. 4. Ovarium surrounded by the bowl-shaped nectariferous crown, terminated by the Style, and connivent two-lobed Stigma.



Ed Smith del

Pub by J. Ridgway 169. Piccadilly Jan. 1910.

W. & A. G. S.

PHLOX longiflora.

Long-flowered Lychnidea.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. POLEMONIACEÆ. *D. Don obs. on Polem. p. 4.*

PHLOX. Supra fol. 7. series 2.

P. longiflora, caule scabriusculo obscure maculato, foliis lanceolatis acuminatis utrinque glaberrimis nitidis margine scabris: superioribus latioribus, racemis paniculatis, corollæ laciniis rotundatis: tubo longissimo calyce triplo longiore, dentibus calycinis lanceolatis acutis erectiusculis. *Phlox tardiflora.* *Penny in Young's Hortus Epsomensis. p. 38.*

Perennial, producing several stems from the same root. *Stems* erect, bluntly quadrangular, from 2 to 3 feet high, roughish, but not hairy, more or less spotted with faint spots. *Leaves* opposite, crossing each other, shortly petiolate, smooth on both sides, the upper side glossy, quite free from pubescence, the margins rough; *lower ones* very long, lanceolate and tapering to a long narrow point, also narrowing to the base; *upper ones* generally alternate, ovately lanceolate, acuminate. *Petioles* very short, channelled on the upper side. *Racemes* in a sort of loose panicle, the stem rough and clothed with a short pubescence, leafy. *Flowers* pure white, very sweet-scented. *Lateral corymbs* few flowered. *Peduncles* and *pedicles* clothed with a short glandular rough pubescence. *Bractes* variable, lanceolate, linear, or subulate, rough at the edges. *Calyx* tubular, 5-angular, smooth and glossy, membranaceous between the angles, 5-toothed, the teeth lanceolate, acute, membranaceous at the edges, erect, or spreading a little at the points. *Corolla* tubular, with a 5-cleft, spreading limb: *tube* very long, curved a little and ascending, smooth and glossy, about three times the length of the calyx: *limb* 5-cleft, the segments broad and rounded, imbricate at the edges, or lapping over each other. *Stamens* 5, inserted in different parts of the tube, 3 near the mouth, and 2 lower down: *filaments* short, smooth, attached to the back of the anthers:

pollen granular, yellow. Ovarium oval, smooth, and glossy. Style slender, smooth, included in the tube. Stigma 3-cleft, or rarely 4-cleft, the segments spreading.

Our drawing of this handsome and interesting plant, was made from fine specimens sent to us from the rich collection of hardy plants, at the Nursery of Messrs. Charles, James, and Peter Young, at Epsom, who inform us that it was received from North America, as a new species; it is certainly very different from *P. suaveolens*, in its habit, time of flowering, and the long tube of the corolla, the latter character of the length of the tube, compared with the calyx, will we believe at once distinguish it from the whole of the genus; we did not adopt the name of *tardiflora*, given by Mr. Penny, as the greater part of the genus are late bloomers, so that it would not be appropriate. It is certainly a very fine plant, the deep glossy green of the leaves, contrasted with the milk white flowers, make a neat appearance; the flowers are also very fragrant, which still makes it the more desirable. It succeeds well in the open borders of the flower-garden, in a rich light soil, and is readily increased by young cuttings, planted under a hand-glass, or by dividing at the root.

We have been informed by Mr. David Cameron, that Mr. Barclay has, last Summer, received our *P. scabra*, v. 3. t. 248. under the name of *P. Sickmánni*, from Dr. Lehmann, but we do not know that he has published it; at any rate our Subscribers must recollect that both names belong to the same species.

For the derivation of the generic name, see folio 7. series 2.



1. Calyx. 2. Tube of the Corolla spread open, to show the insertion of the Stamens.
3. Ovarium terminated by the Style and three-cleft Stigma.



17. G. & L. Ed.

Pub. by J. R. & W. J. P. & Co. Ltd., Jan 1850.

W. & A. G. & Co.

ECHINACEA heterophylla.

Various-leaved Echinacea.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam. 2. p. 103.*

Subordo X. HELIANTHÆÆ. *Cassini in journ. de phys. tom. 78. p. 111.*

ECHINACEA. (Mœneh. et Cassini.) *Involutum* multiplici ordine polyphyllum, squarrosum. *Receptaculum* conicum, paleaceum: *paleis* acuminatis, sæpiùs elongatis, rigidis, deciduis. *Floeculi radii* ligulati, neutri; *disci* hermaphroditi, infundibuliformes, 5-dentati: tubo brevissimo: fauce e basi sursum abruptè dilatata. *Stigmata* elongata, acuminata, recurvata, undique papilloso-hispidula. *Achenia* quadrangula: coronulâ membranacea, laciniatâ, aristatâ.—*Herbæ* (Amer. Boreal.) *scabræ, radice perennâ.* Folia *alterna, indivisa.* Capitula *solitaria.* Floeculi radii *purpurei.* D. Don Mss.

E. heterophylla, foliis radicalibus panduriformibus, paleis membranaceis longitudine flosculorum. D. Don Mss.

Coreopsis heterophylla. *Cavan. icon. 3. p. 34. t. 268.*—*Simsia?* *heterophylla.* *Pers. syn. 2. p. 478.*

Ximenesia Cavanillesii. *Spreng. syst. v. 3. p. 606.*

Helianthus glutinosus. *Sesso et Mocino. Mss.*

Herba atrovirens, setulis callosis brevissimis copiosissimè vestita, *scabra*, leviter glutinosa. *Radix* perennis. *Caulis* e centro foliorum subsolitarii, erecti, cubitales, simplices, uniflori v. rariùs divisi, pluriflori, pubescentes, viscosi, parum angulati, sordidè purpurascentes. *Folia radicalia* numerosa, patentia, petiolata, oblonga, acuta, panduriformis, margine serrata (sinubus nunc integerrimis) basi acuminata, palmaria v. spithamea, latitudine sequi-v. tripollicaria, costâ primariâ robustâ, subtùs convexâ, lateralibus abbreviatis, venis ramosissimis, reticulatis; *caulina* paucissima, multò minora, lanceolata, acuta, serrata, petiolata; superiora lineari-lanceolata, acuminata, integerrima, sessilia. Petioli suprâ canaliculati; subtus convexi, nervosi, basi apiceque dilatati, 2-4-unciales. *Podunculi* elongati, uniflori, apice simplices, densè pilosi. Capitula nutantia. *Involutum* duplici ordine polyphyllum: foliolis lanceolatis, acuminatis, scabris; *exterioribus* longioribus. *Receptaculum* conicum, paleaceum: paleis lanceolatis, acuminatis, membranaceis, carinatis, margine denticulatis, longitudine flosculorum, deciduis. *Floeculi radii* plurimi (15-20) ligulati, neutri, lilacini, multinervi, subtùs adpressè pilosiusculi, apice obtusè tridentati, pollicares v. ultra; *disci* hermaphroditi, creberrimi, infundibuliformes: *tubo* brevissimo, contracto: *fauce* tubo 4-plò longiore, e basi sursum abruptè dilatata: *limbo* 5-dentato: *dentibus* ovatis, acutis, patulis, pube brevissimâ glandulosâ suprâ barbatis. *Stamina* summo tubo inserta: *filamenta* complanata, glabra, articulo superiore brevissimo, dissimili: *anthera* in tubum coalitæ, basi obsolete bidenticulatæ, muticæ, appendiculâ ovatâ acutâ cartilagineo-membranaceâ, extùs concavâ, interiùs carinatâ, coronata. *Stylus* filiformis, glaber. *Stigmata* elongata, subulato-acuminata, recurvata, undique papilloso-hispidula. *Achenia* compressa, 4-angula. adpressè pilosa. *Pappus*: coronula membranacea, profundè laciniata, laciniis nonnullis longioribus, aristatis. D. Don Mss.

“ This showy plant is a native of Mexico, and was introduced into the Royal Botanic Garden at Madrid, so long ago as 1793, but it shortly after perished, without perfecting its seeds, and it was entirely unknown to the gardens of this country, until again introduced from Mexican seeds by Mr. Lambert and Mr. Barclay, in whose collections it flowered in October last. It appears to be perfectly hardy, and will doubtless prove a valuable acquisition to our collections.”

“ The genus *ECHINACEA* was first proposed by Mœnch, and it has since been adopted by Cassini, otherwise we should have been disposed to change the name, which is in some degree objectionable: besides the *Rudbeckia purpurea* of Linnæus, and the subject of the present article, the genus will also include *Rudbeckia serotina*, given at t. 4. of the first series of this work. The genus is much more akin to *Heli-ânthus* than to *Rudbeckia*, and it is chiefly distinguished from it by the structure of its pappus, and by the shorter tube of the florets of the disk. The *Rudbeckia fulgida*, *hirta*, *triloba*, and some other allied species, characterised by their very short, undivided seed-crown, will perhaps constitute another genus. The *R. laciniata* being the original species, I have considered it as the type of the genus *RUDBECKIA*; which will also comprise *R. digitata*, *lævigata*, *pinnata*, and *colum-naris*. It is essentially distinguished by its elongated, cylindrical receptacle, covered with short obtuse paleæ; by its simple involucre; by the florets of the disk being very short, and of nearly equal width; and finally by the shorter, broader, and almost pointless stigmata.”

The whole of the above account was furnished us by Mr. David Don.

The specimen from which our drawing was made, was sent us by the kindness of Robert Barclay, Esq. from his extensive collection of rare plants at Bury-Hill, in October last, where it was raised the year before from seed received from Mexico: it is a very handsome Autumn flowering plant; and Mr. Cameron informs us that it forms a large tuberous root, which he expects may be preserved through the Winter, in the same manner as the roots of the Marvel of Peru, and *Georgina*, or it may be protected by a pot placed over it, or a bank of earth, or any other slight covering, in severe frost.

The generic name is derived from *ἐχινος*, a hedgehog, from the rigid sharp chaff on the receptacle.

◆◆◆

1. Capitulum split through the centre, to show the chaffy receptacle, and the various lengths of the leaflets of the Involucre. 2. One of the paleæ or chaff, showing the hairy keel at the back. 3. One of the sterile Rays. 4. Floret of the disk, seated on the seed. 5. The same split open, to show the nerves alternating with the teeth. 6. The 5 Stamens, showing the distinct filaments, and connected anthers. 7. Seed divested of the floret, to show the Style and fimbriate Stigma.



Iris sibirica

Ed. by R. G. W. (P. P. W. 1861)

W. G. W.

CYPÉLLA Herbér̄ti.

Mr. George Herbert's Cypella.

Linnean Class and Order. MONADELPHIA TRIANDRIA.

Natural Order. IRIDEÆ. *Brown prodr.* 1. p. 302.

CYPELLA. *Spatha* diphylla. *Perianthium* hexaphyllo-partitum, petaloideum, basi cucullato-concavum: foliolis exterioribus majoribus patentibus; interioribus minoribus convolutis apice reflexis. *Stamina* 3, erecta: *filamenta* brevissime coalita, basi dilatata, apice acuminata: *antheræ* bilobæ, lateraliter dehiscens. *Stylus* gracilis. *Stigmata* erecta, 3-loba; laciniis trifidis erectis basi utrinque appendiculatis. *Capsula* oblonga, 3-locularis, 3-valvis, polysperma. *Semina* compressione angularia.—Herba (Americana) *elegans*. *Rhizoma* bulbo-tuber. *Caulis* sesqui-v. *bipedalis, erectus, foliosus, apice ramosus*. *Folia* plicata, palmiformia, glaucescentia; caulina basi vaginata. Flores laxè paniculati, erecti, pulcherrimi. *Spatha uniflora*. *Pedicelli non articulati*.

C. *Herberti*, foliis plicatis elongato-lanceolatis acutis glaucescentibus, caule folioso paciculato-ramoso.

Cypella Herberti. *W. Herbert in Botan. magaz.* 2637. p. 2. in note. *Swt. hort. brit.* p. 394.

Tigridia Herberti. *W. Herbert in Botan. magaz.* 2599.—*Moræa* Herberti. *Lindl. Bot. reg.* 949.—*Marica* Herbertiana. *Ker Irid. gen.* p. 19.

Root a bulb tuber, ovate, tapering to the point, and clothed with a brown skin, producing numerous small fibres from the base. *Leaves* plaited, like those of a Palm, erect, rigid, elongately lanceolate, taper-pointed, glaucous, sheathing the stem at the base; those on the stem shorter and less tapering to the point. *Stem* erect, from eighteen inches to two feet in height, smooth, glaucous, the upper part rather flexuose, and branching a little, thickened at the joints. *Spatha* two-leaved, two-valved, enclosing a single flower before expansion: *bractes* elliptically lanceolate, acute, of a thin texture, folded round the pedicle, the outer one shortest. *Pedicles* about the length of the spathes, lengthening out when in seed, nearly cylindrical, not jointed, smooth and glossy. *Perianthium* 6-parted, scarcely joined at the base, hollowed at the bottom like a bowl; *outer leaflets* large and spreading, obovate, a little twisted or crumpled, very broad at the end but terminated in a short acuminate point, slightly crenulate, of a bright orangy yellow, transparent at the base, and marked from the bend with a dark stripe, which becomes lighter and

narrower as it extends to the point: *inner leaflets* much smaller, reflexed from about the middle, the sides folded inwards, oblongly lanceolate when spread out, and terminating regularly in a sharp point, marked with a light patch in the centre, round which it is striped and spotted with purple. *Stamens* 3, erect, inserted in the base of the perianthium, and slightly connected at the base: *filaments* flat, broad at the base and tapering upwards, where they are inserted into the base of the anthers: *anthers* erect, rather broadest at the base, two-lobed, bursting longitudinally at the sides for the exclusion of the pollen, which is of a yellowish green. *Ovarium* green, obovately oblong, scarcely angular. *Style* filiform, smooth. *Stigma* erect, 3-lobed; the segments trifid, erect, with a spreading purple appendage on each side, two side ones longest, subulate, dark purple, with yellow points; the middle one shorter, blunter, and notched at the point. *Capsule* brown and hard, 3-celled, 3-valved, many seeded. *Seeds* small, more or less compressed, angular and of a pale brown colour.

For the bulb that produced the specimen from which the present figure was made, we are indebted to the Honourable and Reverend W. Herbert, of Spofforth, Yorkshire, who was so kind as give us a bulb and seeds of it, which we planted in a border of light soil, by the side of a wall in a southern aspect, where it attained the height of two feet, and produced a great number of flowers, which expanded in succession a great part of the Summer, and some of them produced seeds; the only protection we have ever given it, is, the covering of a single mat in very severe weather, the same as we use for the bulbs from Peru, Mexico, and the Cape; but we believe the present would succeed without the least protection if planted about four inches deep in the ground; it is a native of Buenos Ayres, and flowered for the first time in this country in the Autumn of 1824, in the conservatory of the late Hon. and Rev. George Herbert, at Burghclere, in memory of whom the species is named.

The generic name is derived from *κυπελλον*, a cup, from the hollow at the base of the flower.



1. One of the inner leaflets of the Perianthium, spread open to show its form. 2. The 3 Stamens slightly connected at the base, dilated below and tapering to a slender point, where they are inserted into the base of the anthers, which are burst at the sides and show the pollen. 3. Ovarium terminated by the Style and Stigma.

LUBÍNIA atropurpurea.

Dark purple Lubinia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. PRIMULACEÆ. *Brown prodr.* 1. p. 427.

LUBÍNIA. *Calyx* 5-partitus. *Corolla* infundibuliformis 5-partitus : laciniis æqualibus subpatentibus. *Stamina* 5 : *filamenta* glandulosa, basi dilatata, basi laciniarum inserta. *Stigma* obtusum, subbilobum. *Capsula* subealvis polysperma.

L. atropurpurea, foliis spatulatis oblongo-lanceolatisve acutis sparsis subternisve impunctatis, racemis congestis terminalibus pendulis, bracteis pedicellis subæqualibus, laciniis calycinis carinatis, limbo corollæ erecto, staminibus longe exsertis.

Lubinia atropurpurea. *Link et Otto hort. ber. t. 27. Spreng. syst. 1. p. 572.*

Swt. hort. brit. p. 331.

Lysimachia atropurpurea. *Hooker exot. flor. t. 180. nec aliorum.*

A creeping rooted herbaceous perennial. *Roots* creeping under ground like Mint, and throwing up numerous stems. *Stems* erect, rather slender, from a foot to 15 inches in height, smooth, slightly angular, well clothed with leaves. *Leaves* succulent, sessile, punctate, smooth, scattered, or sometimes whorled in threes, of a dull green or sometimes tinged with purple, veined underneath, the veins branched : lower ones oblong or nearly ovate, scarcely acute, attenuated to the base, upper ones oblongly lanceolate, acute. *Racemes* terminal, crowded with flowers, nodding. *Flowers* dark purple, slightly fragrant. *Bractes* linearly lanceolate, acute, dark purple, rough at the edges. *Pedicles* about the length of the bractes, 5-angular, rough or slightly warted, slender at the base and thickening towards the calyx, dark purple. *Calyx* deeply 5-cleft, dark purple, the segments erect, linear, obtuse, concave, keeled at the back, rough, the points slightly curved inwards, edges fringed with small glands. *Corolla* funnel-form, deeply 5-cleft, bright purple, rough on the outside ; tube short : limb erect ; segments a little spreading at the points, oblongly spatulate, obtuse, fringed with small glands. *Stamens* 5 : *filaments* very long, inserted in the base of the segments, a little dilated at the base, covered with small glands, light purple : *anthers* two-lobed,

joined by their back to the filaments. *Ovarium* ovate, smooth, the lower part immersed in the thickened upper part of the pedicle. *Style* smooth, purple, much shorter than the stamens. *Stigma* blunt, slightly two-lobed.

Our drawing of this beautiful plant was made from fine specimens sent us from the collection of Robert Barclay, Esq. of Bury Hill; it is a native of the Cape of Good Hope, and the first time we ever heard of it was in 1823, at the Nursery of Messrs. Rollison, at Tooting, who had raised it from seed received from the Cape, and which, we believe, was the first time of its introduction to this country: its roots creep under ground, and throw up shoots similar to Mint, so that it is readily increased; it will also sometimes ripen its seeds; the best situation for it is a sheltered border in a southern aspect, and in severe weather it will need some slight covering, that its roots may not be destroyed by the frost; the protection of a mat, or any other slight covering, will be sufficient, or some plants of it may be kept in small pots in the frames through the Winter, and turned out in the borders in Spring; they will then flower the latter end of Summer and Autumn, continuing to bloom a considerable time.

Dr. Hooker has published the present plant as *Lysimachia atropurpurea*, to which it is not in the least related, according to the figure in *Flora Græca*, that being a tall, slender, upright plant, with a long spike of small rose-coloured flowers, nearly related to *L. dubia*, which is also there figured; they will most probably, with *L. Ephemerum*, be hereafter constructed into a genus distinct from *Lysimachia*, which is at present a very polymorphous one.

The genus was named by Commerson in compliment to M. de St. Lubin, a French officer, who travelled in the East Indies.



1. Calyx. 2. Corolla spread open, showing its inside, and the insertion of the 5 Stamens at the base of the segments of the limb. 3. Ovarium detached from the upper part of the pedicle in which it is half included, terminated by the Style and slightly two-lobed Stigma.



F. L. m. c. d. d.

Pub. by J. B. G. v. d. W. 189. Amsterdam. T. 2. 189.

Pl. 1.

TAGÈTES florida.

Gay flowering Tagetes.

Linnean Class and Order. SYNGENESIA SUPERFLUA.

Natural Order. COMPOSITÆ. *Adanson fam.* 2. 103.

Tribus IV. JACOBÆÆ. Kth. synops. v. 2. p. 440.

TAGETES. *Involucrum* tubulosum, dentatum. *Receptaculum* nudum. *Flosculi* disci tubulosi hermaphroditi; *radii* ligulati feminei. *Antheræ* basi nudæ. *Akenia* linearia, compresso-complanata, coronata squamis 3-6 inæqualibus.—Herba *foliis oppositis aut alternis, pinnatis, interdum bipinnato-multifidis aut simplicibus involucrisque glanduloso-punctatis.* Flores *terminales, rarissime axillares.* *Radius luteus aut fulvus.* Kth. synops. 2. p. 460.

T. florida, caule erecto ramoso, ramis junioribus subpubescentibus, foliis oppositis simplicibus semiamplexicaulibus oblongo-lanceolatis opacis tenuissime argute serratis: serraturis inferioribus filiformi-attenuatis, corymbis paniculatis multifloris, involucrio tubuloso pubescente radium amplum subæquante.

Perennial. *Stems* several, erect, much branched, bluntly four-sided, more or less tinged with purple: *branches* rigid, erect, slightly pubescent when young, but becoming smooth by age, clothed with small brown glands, particularly on the upper part. *Leaves* simple, opposite, connected at the base, and clasping the stem, oblongly lanceolate, scarcely acute, attenuated a little towards the base, smooth, or the young ones slightly pubescent, sharply serrate with numerous unequal small sharp teeth, those at the base lengthened out into long hair-like points, so as to give an appearance of being fringed, punctated with numerous small dots, of a dull green appearance, not glossy as in *T. lucida*: *upper leaves* narrower, more pointed, and more deeply channelled on the upper side. *Flowers* numerous, golden yellow, in a branching paniculated corymb. *Peduncles* slender, pubescent, glandular, generally bearing two or three bractes, that are very narrow, and taper to a long filiform point. *Involucre* slender, tubular, attenuated a little to the base, toothed with several little taper-pointed teeth, pubescent, and dotted with nu-

merous little glandular dots, that gives it a roughish appearance. *Receptacle* naked. *Rays* very large and spreading, about the length of the tubular involucre, generally three, but sometimes four, very broad, more or less divided or jagged, rarely entire, slightly crenulate or uneven at the edges, bearing a smooth *Style* and a two-cleft spreading yellow *Stigma*, and producing perfect seeds. *Florets of the disk* tubular, 5-cleft. *Stamens* 5: *filaments* distinct: *anthers* connected into a tube, naked at the base. *Style* smooth, slender. *Stigma* bifid, the segments spreading, bright yellow. *Akenia* or *seed* slightly pubescent, linear, flat, and terminated by three or four unequal chaffy scales.

The present very handsome plant is a native of Mexico, from whence seeds were received by Robert Barclay, Esq. of Bury Hill, in 1826, some plants of which flowered in the Autumn of 1827, and magnificently the last Autumn, when our drawing was made; it belongs to the same division of the genus as *T. lucida*, from which it differs in its stronger growth, larger rays to the flower, which are also more divided, opaque not glossy leaves, which are fringed a little above the base by the teeth being terminated by long rigid bristles. Flowers very fragrant. Mr. Cameron informs us that it is considerably hardier than *T. lucida*, the least protection being sufficient to preserve it through the Winter, or in mild Winters not the least covering will be needed, a common flower pot turned over the plant will be quite sufficient let the Winter be ever so severe, which must be always removed in mild weather, or the leaves will turn mouldy, and rot. Mr. Cameron believes they have two or three other simple-leaved species, but they have not yet flowered; a light rich soil is the most proper for it, or it will thrive well in peat, when the flowers will be of a deeper colour; it may be increased by cuttings, or dividing at the root; seeds are also sometimes ripened.

The genus was named after Tages, a Tuscan divinity, the son of Genius and grandson of Jupiter.



1. The tubular Involucrum spread open, to show the dots with which they are covered.
2. One of the broad rays, showing the two Stigmas exerted above the slender tube, the seed at the base perfect, terminated by short chaffy scales.
3. Floret of the disk spread open, showing the nerves alternating with the teeth.
4. The 5 Stamens spread open, the filaments distinct, the anthers united into a tube.
5. Seed, terminated by the Scales, and by the Style and Stigmas.
6. One of the lower leaves.



Pl. Sm. & W.

Pub. by J. Ridgway, 61 Piccadilly, Feb. 1830.

W.

PHLOX glaberrima.

Smooth Lychnidea.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. POLEMONIACEÆ. *D. Don obs. on Polem.* p. 4.

PHLOX. Supra fol. 7. series 2.

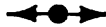
- P. glaberrima*, cæspitosa, caule erecto glaberrimo, foliis lineari-lanceolatis lævibus, corymbo trifido terminali : fasciculis 3-4-floris, calycis dentibus acuminatis patulis, corollæ laciniis rotundatis.
Phlox glaberrima. *Linna. spec.* p. 217. *Willden. sp. pl.* 1. p. 841. *Enum. hort. ber.* 1. p. 200. *Hort. Kew. ed.* 2. v. 1. p. 326. *Pers. syn.* 1. p. 186. *Spreng. syst.* 1. p. 624. *Mich. fl. amer.* 1. p. 142. *Pursh fl. amer. sept.* 1. p. 326. *St. Hilaire* 18. t. 6. *Kerner Oek. Pflanz.* t. 136.
Lychnidea folio melampyri. *Dill. elth.* 203. t. 166. f. 202.

A close dense tufted perennial plant. *Stems* erect, from a foot to 18 inches in height, quite smooth and glossy, green or sometimes tinged with purple. *Leaves* on the stem opposite, sessile, clasping the stem, quite smooth and glossy, without any roughness or pubescence : lower ones narrowest, linear or linearly lanceolate, taper-pointed, and attenuated towards the base ; upper ones broader, oblongly lanceolate, also tapering towards the point, but broad at the base. *Flower-stem* more or less branched, terminated in a trifid corymbus, each fascicle being generally 3 or 4-flowered : side branches less divided, mostly 3 to 5-flowered. *Bractes* lanceolate, having the appearance of small leaves. *Pedicles* short, quite smooth, a little thickened upwards. *Calyx* tubular, 5-angled, 5-toothed, smooth and glossy, the segments joined to each other by a thin membrane : teeth lanceolate, taper-pointed, spreading, or the points slightly reflexed. *Corolla* tubular, with a 5-cleft, spreading limb : tube striated, curved a little, about twice the length of the calyx : segments of the limb broadly obovate, rounded, and imbricate, of a reddish lilac, dying off bluish. *Stamens* 5, inserted in the tube, three of them near the mouth and partly exserted, the other two lower down : *filaments* smooth, short and slender : *pollen* golden yellow.

Ovarium conical, smooth. *Style* smooth, slender, about the length of the tube. *Stigma* slightly exserted, 3-cleft, the segments spreading.

We do not know of any modern figure of the present pretty species, a native of North America, growing in wet meadows in Carolina, and on the mountains of Virginia, according to Pursh, flowering from June to August: our drawing was taken from a plant at the Nursery of Mr. W. Russell, of Battersea, who had a fine bed of it in full bloom, that contained more plants of it than we have ever seen together in any other collection: it is a very handsome plant, readily distinguished from most others, by its entire smoothness and glossy appearance: what still makes it the more desirable is its low growth, seldom exceeding eighteen inches in height, and thriving well in the common garden soil; it may be readily increased by dividing at the root, or young cuttings planted under hand-glasses in Spring, will soon strike root, and make flowering plants the same Summer.

For the derivation of the generic name, see folio 7. of the present series.



1. Calyx.
2. Tube of the Corolla spread open, to show the insertion of the 5 Stamens.
3. Ovarium, terminated by the Style and three-cleft fleshy Stigma.



P. sat. by J. E. Smith. 1860. *Proceedings of the Royal Society of London*.

W. & A. G. & Co.

LÁTHYRUS venosus.

Veined Lathyrus.

Linnean Class and Order. DIADELPHIA DECANDRIA.

Natural Order. LEGUMINOSÆ. DC. *prodr.* 2. p. 93.

Subordo I. PAPILIONACEÆ.—Tribus IV. VICIÆ. *Supra fol.* 194. series 1.

LATHYRUS. *Calyx* campanulatus 5-fidus, lobis 2 superioribus brevioribus. *Corolla* papilionacea. *Stamina* diadelphea. *Stylus* complanatus, apice dilatatus, anticè villosus aut pubescens. *Legumen* oblongum, polyspermum, bivalve, uniloculare. *Semina* globosa aut angulata.—*Herbæ sæpius scandentes.* *Stipulæ semisagittatæ.* *Petioли apice in cirrhum ramosum abeuntes.* *Foliola* 1-3-juga. *Pedunculi axillares.* DC. *prodr.* 2. p. 369.

Sect. I. EULATHYRUS. *Vexillum* basi edentatum. *Foliola* opposita vel abortu nulla. *Petiolus* angustè alatus.

L. venosus, caulibus tetragonis non alatis, foliis 4-5-jugis: foliolis ovatis obtusis oppositis alternisve mucronatis glabris, cirrhis trifidis, stipulis sagittato-ovatis basi dentatis, pedunculis multifloris folio brevioribus.

Lathyrus venosus. Willden. *sp. pl.* 3. p. 1092. Pers. *syn.* 2. p. 305. Pursh. *fl. amer. sept.* 2. p. 471. DC. *prodr.* 2. p. 371. Spreng. *syst.* 3. p. 264. Swt. *hort. brit.* p. 126. Edit. 2. p. 155. n. 11.

Root perennial. *Stems* flexuose, ascending, quadrangular, not winged, slightly pubescent. *Leaves* pinnate, producing four or five pair of leaflets, and terminated with a trifid tendril, which is sometimes again divided: *leaflets* broadly ovate, obtuse, terminated with a short mucro, rather fleshy, sometimes opposite and sometimes alternate, nearly sessile, numerously nerved, the nerves very much branched, slightly glaucous, smooth. *Petioles* angular, raised on the upper side and keeled on the lower, slightly pubescent when young. *Stipules* large, ovate, sagittate at the base, and more or less toothed, acute, slightly ciliate, strongly veined with numerous branching veins, nearly as large as the leaflets. *Peduncles* axillary, 6 to 10-flowered, angular. *Flowers* purple, with white wings. *Bractes* oblongly lanceolate, the lower ones ovate. *Pedicles* shorter than the bractes, nodding. *Calyx* bell-shaped, 5-cleft, the lacinia lanceolate, acute, fringed, the two upper ones shortest. *Vexillum* obcordate, dark pur-

ple, veined with darker purple branching veins. *Wings* obovate, white tinged with blush, much shorter than the vexillum, eared on one side, and producing a long slender unguis on the other. *Keel* shorter than the wings, of a blush colour, divided at the point, eared on each side. *Stamens* 10, diadelphous, 9 joined in a tube, but distinct at the points, the tenth distinct. *Ovarium* pubescent, several seeded. *Style* linear, dilated and bearded near the point.

Our drawing of this beautiful species of *Lathyrus*, was taken from fine specimens, sent us from the superb collection of Robert Barclay, Esq. at Bury Hill; the plants were received from North America, sent home by Mr. T. Nuttall, and in Mr. Barclay's garden they grow very vigorously, and have attained a great size, making a fine appearance when in bloom; which continues for a great length of time if the weather prove favourable. Pursh mentions its being a native of low meadows in Pennsylvania, flowering from July to August; and Nuttall says it is common on the Alleghany mountains, growing on the declivities of shady hills; it was first introduced to this country about 1823.

The present species is quite hardy, and thrives well in an open border of the Flower Garden, in the common garden soil, the richer that is, the stronger will be its growth, and the larger its leaves and racemes of flowers; it also ripens seeds, so that it may be readily increased; it may also be divided at the root.

According to Linnæus, the generic name is a Greek word of doubtful origin; the commentator of Theophrastus derives it from $\lambda\alpha$, much or greatly, and $\theta\upsilon\rho\omicron\varsigma$, exciting, most probably from cattle being very fond of some of the species.



1. Calyx, the two upper segments shortest. 2. Vexillum. 3. The two wings. 4. Keel. 5. The 10 Stamens, 9 joined in a tube, but laid open to show their distinct points, the tenth distinct to the base. 6. Ovarium terminated by the Style, which is dilated and bearded at the point.



Pro. by J. Hodgway 169. Privately March 1880.

LEPTOSTELMA maximum.

Great Mexican Daisy.

Class & Order. SYNGENESIA POLYGAMIA SUPERFLUA.

Natural Order. COMPOSITÆ. *Adanson. fam. 2. p. 103.*

Subordo VII. ASTEREÆ. *Cass.—Tribus BELLIDÆÆ.*

LEPTOSTELMA. *Involucrum* æquale, hemisphæricum. *Receptaculum* paleaceum. *Flosculi* radii ligulati, fœminei; *disci* hermaphroditi, tubulosi, 5-dentati. *Pappus* capillaris. *D. Don. Mss.*

Involucrum duplici ordine polyphyllum, hemisphæricum: *foliis* lanceolatis, longè acuminatis, adpressis, æqualibus. *Receptaculum* convexum, paleatum: *paleis* copiosissimis, tenuissimè membranaceis, linearibus, obtusis, brevissimis. *Flosculi radii* fœminei, duplici ordine copiosissimi, contigui, lineari-angustissimi, apice 2-3-dentati; *disci* hermaphroditi, creberrimi, infundibuliformes, 5-dentati: *tubo* angusto, 5-angulo: *dentibus* ovatis, acutis. *Stamina* summo tubo inserta: *filamenta* capillaria, glabra; *articulo superiore* longiusculo, tereti: *antheræ* coalitæ, basi attenuatæ, omninò muticæ, appendiculâ lanceolatâ acutâ membranacê concavâ coronatæ. *Stylus* capillaris, glaber. *Stigmata* radiis semi-cylindrica, obtusa, lævia, patentia; hermaphroditis linearia, complanata, recurvata, apice acuto, minutè papilloso. *Achenia* cuneata, ancipiti-compressa, glabra. *Pappus* capillaris, cinereus: *radiis* duplici ordine copiosis, inæqualibus, scabriusculis.—*Planta perennis, robusta, setulis callosis scabra. Caulis orgyalis, erectus, purpurascens, sulcatus, fistulosus, crassitie digiti minoris, apice ramosus. Folia amplexicaulia, erosè dentato-serrata, uninervia, utrinque viridia, suprà exasperata; inferiora elongato-lanceolata, pedalia, 2 pollices lata; superiora cordato-lanceolata, acuminata, 2-4-pollicaria. Flores terminales, corymbosi. Pedunculi teretes, undique copiosè papilloso-glandulosi, apices dilatati. Involucrum herbaceum, densè glandulosum. Radius copiosissimus, albo-purpurascens, pollicaris. Discus luteus. D. Don. Mss.*

Leptostelma maximum *D. Don Mss. Swt. hort. brit. edit. 2. p. 299.*

Erigeron maximum. *Otto Hort. berol.*

“ A native of Mexico; a plant of which was obtained by Mr. Hunnemann, in the Autumn of 1827, from the Berlin Botanic Garden, for Robert Barclay, Esq. in whose collection it flowered last Autumn. The copious and slender rays of the heads of flowers render it a highly ornamental plant. It has been referred to *Erigeron*, but its chaffy receptacle essentially distinguish it from the various groups into which that genus has been divided: the herbaceous involucre composed of a simple or double series of equal leaflets, and the

shorter stigmata of the hermaphrodite florets, sufficiently characterize the *Bellideæ* from the other tribes of the *Astereæ*."

For the above account we are obliged to Mr. David Don, whose observations on the South American and Mexican *COMPOSITÆ* will, we hope, be soon laid before the public. We are informed by Mr. D. Cameron, that the present plant is perennial, and that one plant of it attained the height of seven feet last Summer, and made a magnificent appearance when covered with its large panicles of flowers; it increases freely by dividing at the root, and also occasionally ripens its seeds, so that it may soon become in general cultivation: if planted singly in a border, a large plant of it would make a fine appearance, and it is the more desirable by flowering late in the season, when flowers are most needed, continuing to bloom from the beginning of September to the end of November, if the weather prove favourable; it will be requisite to give it a little protection in severe winters, a common garden pot placed over it, or the covering of a mat, or some fern or straw, will keep it in good health, or some plants of it may be kept in frames, leaving it exposed when the weather is mild.

The generic name is derived from *λεπτος*, slender, and *στελμα*, a crown, from its slender rays forming a crown.



1. Involucre divested of the florets, showing its leaflets, and the short linear chaff on the receptacle. 2. One of the florets of the Ray, showing its perfect seed at the base, with its hairy pappus. 3. Floret of the disk spread open, to show the nerves alternating with the teeth. 4. The 5 stamens, the filaments distinct, and the anthers united. 5. Seed from the discal floret, with its hairy pappus, terminated by its Style and bifid Stigma. 6. Hair of the pappus magnified.



Chelidonium

Bot. Beechey, 1847, Beechey, 1850.

Chelidonium

PEYROUSIA aculeata.

Prickly-stemmed Peyrousia.

Linnean Class and Order. TRIANDRIA MONOGYNIA.

Natural Order. IRIDEÆ. *Brown prodr.* 1. p. 302.

LAPEYROUSIA. *Perianthium* corollaceum; tubo gracili; limbo regulari, 6-partito, hypocrateriforme. *Stigmata* 3, gracilis, 2-partita, patentia. *Capsula* membranacea, 3-locularis, polysperma. *Supra* 143. *series* 1.

P. aculeata, scapo folioso ramoso; ramis ancipitibus compressis aculeato-denticulatis, foliis radicalibus ensiformibus acutis plicatis: caulinis latioribus abbreviatis obtusiusculis apice subincurvis margine crispis, spathis foliaceis crispis tubo perianthii duplo brevioribus, laciniis limbi oblongis patentibus: inferis basi appendiculatis.

Lapeyrousia aculeata. *Swt. hort. brit.* p. 386.

Bulb small, similar to that of *P. anceps*. *Leaves* plaited, smooth; those at the root, lanceolately ensiform, acute, not unlike the leaflets of a plaited palm, the margins smooth, not curled; those on the scape much shorter and broader, the lower ones nearly ovate, bluntish, with curled margins: upper ones longer, narrower and more acute, also with curled edges. *Scape* about a span high, branching, main stem as well as the side branches, all with two flat, winged edges; not 3-edged as in *P. anceps*: the edges thickly clothed with innocuous prickly-like teeth, which are more numerous and longer than in *P. anceps*. *Spatha* 2-valved; outer valve leaf-like, acute with very curled edges, scarcely half the length of the tube of the flower: inner valve not half the length of the outer one, membranaceous, acute, with two strong leafy green nerves, which are also aculeate. *Flowers* alternate, rather distant, sessile, white. *Perianthium* with a long slender tube, more than double the length of the sheath, inflated towards the mouth: *limb* 6-cleft; segments spreading flat, the three upper ones oblong, bluntish or scarcely acute, about double the size of the lower ones, narrower at the base: lower ones more acute, the points slightly curved inwards, all marked near the bend with a red spot, which is darker in the middle one, than in the others: in each of those lower segments, a little below the bend, is a prominent hooked tooth winged at the bottom with red margins, and not unlike bar-

ren filaments; those also occur in *L. anceps*, but very slightly. *Stamens* 3, inserted in the throat: *filaments* smooth, attached to the back of the anthers: *anthers* linear, sagittate at the base, purple. *Germen* smooth, bluntly 3-sided. *Style* smooth, about the height of the stamens, a little exserted. *Stigmas* 3, bifid, spreading, fimbriate, the points of the segments again slightly cloven.

This very curious and pretty plant, which, as far as we can trace, has hitherto been undescribed, is a native of the Cape of Good Hope, from whence it was brought to this country by Mr. Synnot, who we believe introduced more new and rare bulbs from that country at one time, than was ever done by any other individual; and if a little pains was taken with them, to grow them in beds in the open air, as we have already recommended in some former numbers, and also in our Botanical Cultivator, where a full account of the treatment of the whole tribe is given at full length; we should by that means have them in great perfection, and nothing can produce a more elegant and pleasing appearance, than a bed of the different genera and species of this tribe: the best soil for them is an equal quantity of light turfy loam, peat, and sand, or if peat cannot be easily procured, decayed leaves or very rotten dung that has been well exposed and dried in the sun will answer the same purpose, so that it be quite free from caterpillars, or any other sort of insect that is likely to destroy them; the soil must be quite light, that the shoots may come readily through it; they may either be taken up after flowering, and kept dry till the end of October, or if the ground should not become too hard, they may continue in the same situation, requiring nothing but the covering of a mat or some sort of litter in severe frost; they may be increased by offsets from the root, or by seed.

The genus was first named by Pourret, in compliment to Picot de La Peyrouse, author of “*Figures de la Flore de Pyrenées*,” also “*Histoire abrégée des plantes des Pyrenées*,” we have therefore adopted the name as given by Pourret, to distinguish it from *Lapeyrousia* of Thunberg, who applied it to a genus of *Compositæ*, in compliment to the noted traveller La Peyrouse.



1. Inner valve of the Spathe. 2. Perianthium, the tube laid open to show the insertion of the three Stamens, and the appendages on the lower segments. 3. Style terminated by the 3 bifid Stigmas, that are again cloven at the points and fimbriate.



SILÈNE pusilla.

Dwarf Catchfly.

Linnean Class and Order. DECANDRIA TRIGYNIA.

Natural Order. CARYOPHYLLÆ. *DC. prodr.* 1. p. 351.

Tribus I. SILENÆ. *Sepala* coalita in tubum cylindraceum apice 4-5-dentatum.

SILENE. *Calyx* tubulosus 5-dentatus nudus. *Petala* 5 unguiculata, fauce sæpissimè coronata, limbo bifido. *Stamina* 10. *Styli* 3. *Capsula* basi 3-loculares apice in 6 dentes dehiscentes.

Sect. I. RUPIFRAGA. *Caulescentes.* *Caules* stricti. *Pedunculi* filiformes. *Calyces* campanulati vel cylindrici. *DC. prodr.* 1. p. 375.

S. pusilla, cæspitosa, caulibus erectis gracilibus basi ramosis, foliis pilosis: inferioribus spathulatis obtusis in petiolum attenuatis: superioribus linearibus, pedunculis filiformibus erectis 1-3-floris, calycibus campanulato-clavatis, petalis quadridentatis.

Silene pusilla. *Waldest. et Kit. pl. hung.* 3. p. 235. t. 212. *Hornem. hafn.* 1. 418. *Swt. hort. sub. lond.* p. 100. *Hort. brit. pr.* 43. n. 53. *Edit.* 2. p. 52. n. 68.

Silene quadridentata. β *pusilla.* *Oth. mss. in DC. prodr.* 1. p. 375.

Lychnis pusilla. *Link enum.* 1. p. 432.

Perennial, growing in a close dense tuft. *Stems* numerous, erect, very slender, smooth, simple or branched at the base. *Leaves* opposite, oblong or spathulate, bluntly rounded, generally slightly concave, attenuated at the base and down the petiole, clothed with long crooked white hairs on the upper side, and smooth underneath; upper leaves narrower and linear, sessile. *Flowers* white, 1 to 3 on each stalk. *Peduncle* filiform, smooth, erect. *Calyx* clavately campanulate, with 5 bluntly rounded segments, with scarioso margins. *Petals* 5, white, unguiculate, with a spreading 4-toothed limb: fauce crowned with 2 flat teeth or scales. *Stamens* 10, every other one inserted in the base of the petals, the other 5 in the receptacle, exerted beyond the mouth of the corolla: *filaments* smooth, slender: *anthers* incumbent. *Ovarium* smooth and glossy. *Styles* 3, smooth, spreading, crooked, terminated by simple *Stigmas*.

This neat little plant is a native of Hungary, and is well adapted for the ornamenting of rock-work, or growing by the edges of borders, where it will form dense tufts that are

covered with a sheet of snowy white flowers a great part of the Summer; it is also a very desirable plant to grow in small pots, which it will soon cover with its small green shoots, that soon are terminated by flowers, which make a neat and delicate appearance; no little plant can therefore be more desirable for cultivation; if grown in pots, a mixture of light turfy loam, peat, and sand, is the best soil for it, or if planted in the borders or rock-work, the more sandy the soil is the better it will thrive, and survive through the Winter, for should the ground be very moist or heavy, it will be very liable to rot at that season; slugs are also very fond of it, so that it should be well looked to, that they may not eat off the flowering shoots or buds: it is readily increased by dividing at the root, or by seeds.

Our drawing was taken from a plant at the Nursery of Mr. Colvill; we also received it of Mr. W. Anderson, from the Chelsea Botanic Garden.

According to Linnæus, the generic name is derived from *σικελίζω*, frothy or scummy, from many of the species being covered with a viscous substance: some others derive it from the poetical god Silenus, the foster father and pedagogue of Bacchus.



1. Calyx. 2. The 5 Petals, with a Stamen inserted in the base of each. 3. The other 5 Stamens inserted in the receptacle. 4. Ovarium terminated by the three Styles, bent at the points.



J. D. Smith. del.

Pub. by J. Ridgway. 189. *Pseudotsuga*. April 1830.

Veronica n.

VERBÈNA alata.

Winged-stalked Vervain.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.

Natural Order. VERBENACEÆ. *Brown prodr.* 1. p. 510.

VERBENA. *Supra folio* 9. *series* 2.

V. alata, caule erecto ramoso, ramis tetragono-alatis glabris: junioribus strigoso-hispidis, foliis lanceolatis serratis sessilibus trinerviis venoso-rugosis strigoso-scabris, spicis congestis paniculato-ramosis hirsutis, floribus imbricatis.

Verbena alata. *Otto hort. berol. Swt. hort. brit. ed. 2.*

Stem erect, four-sided, the angles winged, from four to six feet high, branched: *branches* slenderest where they join to the stem, four-sided, the angles sharp and winged, striated between the angles, of a bright green, when young thickly clothed with short rigid bristle-like hairs, which occasions a rough hard feel, those soon wear off, and the stem becomes smooth and somewhat glossy; rather slenderer at the joints from where the leaves proceed. *Leaves* opposite, sessile, 3-nerved from the base, much veined and rugged, lanceolate, unequally serrate, acute, very rough to the touch, the roughness occasioned by the short rigid bristle-like hairs, with which they are covered on both sides, entire from above the middle; the teeth sharp, rather distant. *Spikes* rather short, crowded, in terminal panicles: the flower-stems purplish, 4-angular, very rough, being strigosely hispid. *Flowers* crowded, numerous, purple, closely imbricate on the spikes. *Bractes* lanceolate, acute, strigose, about the length of the tube of the calyx. *Calyx* tubular, 5-toothed, strigosely hairy: *tube* 5-angular, membranaceous between the angles; the 4 upper teeth nearly equal in length, acute, hispid, the lower one about half the length. *Corolla* tubular; the tube cylindrical; the limb 5-cleft, segments unequal, ligulate, slightly retuse, upper ones largest. *Stamens* 4, didynamous, two rather longer than the others, inserted in the tube a little below the mouth, and included: *filaments* very short. *Ovary* smooth and glossy. *Style* smooth. *Stigma* capitate,

facing to one side, beaked below. *Fruit* 4-celled, clothed with a thin skin, four-parted, each cell one-seeded.

Our drawing of this elegant and stately plant, was taken from fine specimens sent to us by the kindness of Robert Barclay, Esq. from his superb collection at Bury-hill; the plant had been procured for Mr. Barclay by Mr. Hunnemann, who received it from the Royal Botanic Garden at Berlin, in 1828; it is a native of Monte Video, and thrives well in the borders of the flower garden, making a fine appearance when covered with its numerous spikes of small purple flowers: as it attains so great a height, it should be planted at some distance from the edge of the flower bed, or border, and must be protected by being tied to a stake, or it will be liable to be broken by the wind: it succeeds well in the common garden soil, and the richer and more light that is, the stronger will be its growth; after flowering, and when it is cut down in Winter, it will require a little protection should there be any severe frost; a common garden pot placed over it, or the covering of a mat, or a little litter of any kind, will protect it sufficiently. It may be increased by seed, or by dividing at the root. We have now a plant of *Alstr meria Simsii*, that hath stood several Winters with us with no other protection than a single mat thrown over the bed in severe weather; it flowered and seeded with us last Summer, and has stood this Winter so well, that it is now about four inches high, and has already thrown up sixteen strong shoots. *A. hirtella* has also stood out several years with us, flowering and ripening its seeds every year; we have also had out this Winter, *A. Flos Martini* and *A. Hookeri*, both of which have stood the Winter well, and are now growing freely.

For the derivation of the generic name of this plant, see folio 9, of the present series.



1. Calyx, with a bracte at its base. 2. Tube of the Corolla laid open, to show the insertion of the four stamens. 3. Ovarium terminated by the Style and beaked Stigma.



Walden, N. H.

Aug. 2, 1884, 100 Brackets, April 1887.

Fl. Mich. 1884.

ORNITHÓGALUM montanum.

Mountain Star of Bethlehem.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. ASPHODELEÆ. *Brown prodr. p. 274.*

ORNITHOGALUM. *Perianthium* 6-partitum, erectum, supra medium patens, persistens. *Stamina* 6: *filamenta* basi dilatata receptaculo inserta. *Stylus* 1. *Capsula* 3-locularis. *Semina* subrotunda nuda.

O. montanum, floribus corymboso-racemosis, pedunculis bracteis longioribus, perianthii laciniis oblongo-lanceolatis, filamentis basi dilatatis, pedunculis fructificantibus refractis, capsulis ovatis maximis sexangulatis, foliis elongato-lanceolatis canaliculatis, bulbo solido simplici.

Ornithogalum montanum. *Tenore Fl. nap. prodr. 22. Flor. neap. v. 1. p. 175. t. 33. Synops. nov. plant. flor. neap. p. 41. Schult. syst. veg. v. 7. p. 531.*

Bulb large, simple, not producing numerous offsets like *O. umbellatum*. *Leaves* several, spreading flat in a radiate form, lanceolately linear, tapering to a long slender point, acute, green on both sides, channelled on the upper side, and keeled underneath. *Scape* very short, scarcely any at first, but lengthening as the flowers expand, slightly angular, flexuose between the peduncles, smooth and glossy. *Flowers* corymbose, numerous, at length becoming racemose. *Peduncles* long and spreading, the lower ones longest, erect or slightly spreading when in flower, afterwards bent downwards, smooth and glossy, twice the length of the scape. *Bractes* lanceolate, taper-pointed, striate, membranaceous, scarcely more than half the length of the peduncles, which they clasp nearly all their length. *Perianthium* 6-parted nearly to the base, spreading from about the middle, the base connivent, three outer laciniæ broadest, ovately oblong, acute, white inside but green at the back, edged with white; 3 inner ones narrower and less green at the back, when overblown the laciniæ become linear and lengthen, remaining persistent. *Stamens* 6, inserted in the receptacle. *Filaments* nearly equal in length, smooth, all dilated at the base, and tapering to a point, attached to the back of the anthers:

pollen yellow. *Ovarium* 6-angular, 6-channelled, smooth and glossy. *Style* smooth, triangular, scarcely so long as the Stamens. *Stigma* fimbriate, slightly 3-lobed.

This interesting bulb is a native of Naples; the one from which our drawing was taken, was sent from the Royal Botanic Garden there, to Mr. Colvill, at the Chelsea Nursery, where it flowered, and from whence our drawing was made. Tenore's figure in the *Flora Napolitana*, represents a plant rather stronger than ours, the scape longer, and the bractes longer in proportion to the peduncles, than the present; it belongs to the same tribe as the British *O. umbellatum*, but is nearer related to the *O. nanum* of the *Flora Græca*; but that species has a still shorter scape, and its peduncles are also very short, so that it cannot be confused with any other: to the same division belong *O. excapum*, *tenuifolium*, *refractum*, *lanceolatum*, *collinum*, and *fimbriatum*; the *O. refractum* is now in flower at the Apothecaries' Garden at Chelsea; it is nearly related to *O. excapum*, but is readily distinguished by the white line down the centre of each leaf.

The present species is readily distinguished from *O. umbellatum* by its large simple bulb, which produces few or scarcely any offsets, whereas that species is always surrounded by a nest of them; the whole of this tribe produce their flowers the latter end of March, or beginning of April; they succeed best in a border composed of a light sandy loam; and as the species from the South of Europe are rather more tender than those from the more northern regions, they require to be planted deeper in the ground, to be more out of the reach of frost; and should the Winters prove very severe, it will be safest to cover them with a little litter, or a covering of rotten tan, of two or three inches thickness, will be of great service in keeping out the frost.

The generic name is derived from *ορνιθος*, a bird, and *γαλα*, milk: the milk of birds, abundance or rarity; from the abundance of white flowers produced by the different species.



1. The six Stamens spread open. 2. Ovarium, showing its angular sides, terminated by the Style and simple Stigma.



W. Smith del.

Pub. by J. K. Rogers. W. Providence April 1861.

Malva

POTENTILLA Mackayana.

Mackay's mule Cinquefoil.

Linnean Class and Order. ICOSANDRIA POLYGYNIA.

Natural Order. ROSACEÆ. *Don prodr. fl. nepal. p. 229.*

Subordo II. DRYADEÆ. *Calyx* 5-fidus (rariùs 4-fidus aut pluri-divisus), per æstivationem valvatus, sæpè extùs bracteolas lobulose exteriore lobis alternos gerens. *Petala* tot quot cal. lobi veri et iis alterna. *Stamina* numerosa, rariùs 5 et tunc lobis cal. opposita, apice tubi calycini expansi inserta. *Carpella* numerosa, rariùs pauca congesta, toro inserta, inter se et à calyce libera, et latere prope apicem stylifera. *Styli* introrsum sulco-notati in stigma obliquum expansi. *Akenia* uniovulata omninò libera, exsucca aut baccata. *Semen* solitarium erectum aut inversum, exalbuminosum. *Embryo* rectus, cotyledonibus planiusculis.—*Herbæ aut frutices, foliis sæpiùs compositis, stipulis 2 lateraliter petiolo adnatis.* DC. prodr. 2. p. 549.

POTENTILLA. *Calyx* tubus concavus, limbus 4-5-fidus extus 4-5-bracteolatus. *Petala* 4-5. *Stamina* numerosa. *Carpella* numerosa stylo laterali donata, in receptaculo procumbente persistente exsucco capitato. *Semen* appensum.—*Herbæ aut suffrutices foliis compositis; stipulis petiolo adnatis; floribus albis luteis rariter rubris.* DC. prodr. 2. p. 571.

Sect. I. POTENTILLASTRUM. *Petala* obtusa vel obcordata lutea (rariùs rubra). *Folia* palmata vel pinnatisecta.

P. Mackayana, villosa-pilosa, caule adscendente ramoso, foliis flaccidis radicalibus quinatis: foliolis oblongo-cuneatis grosse et obtuse dentatis; caulinis ternatis paucidentatis, stipulis ovatis acutis integerrimis, petalis obcordatis undulatis calyce paulo longioribus.

Root perennial. *Stems* numerous, ascending, branched, thickly clothed with long, spreading, villous down: *branches* ascending, many times forked, producing a flower in each fork. *Leaves* petiolate, also thickly clothed with long villous hairs, of a dark green on the upper side and lighter underneath; *lower leaves* producing 5-leaflets, which are of a thin texture, oblongly wedge-shaped, tapering to the base, and toothed with numerous large bluntish teeth, pinnately nerved and reticulately veined, the middle one longest and the lower ones shortest and broadest. *Petioles* furrowed above, and on each side, villosely hairy, tinged with purple: *stem-leaves* on very short footstalks, producing only three leaflets, and the upper ones only a single one, the leaflets smaller, and the upper ones with fewer teeth, the terminal ones quite

entire. *Stipules* large, ovate, acute, attached to the base of the petioles. *Peduncles* a little flattened, tinged with purple, and villous. *Calyx* 5-parted, villous, with 5 bractes attached to it a little above the base. *Bractes* lanceolate, acute, strongly 3-nerved. *Segments of the calyx* ovate, acute, spreading, shorter than the bractes, connivent after the flower is overblown. *Petals* 5, obcordate, a little longer than the calyx, pale yellow tinged with red, and light red at the base, slender at the base, so as for the calyx to show through. *Stamens* 20, inserted in the base of the calyx and surrounding the carpella : *filaments* smooth, short, light red : *anthers* two-lobed, bursting by the sides : *pollen* yellow. *Carpella* numerous, smooth and glossy, inserted in a villous receptacle. *Style* smooth, purple. *Stigma* a small blunt point.

The present subject is of hybrid origin, having been produced from the seed of *P. formosa*, that had been fertilized by the pollen of *P. opaca* ; it was first raised at the Nursery of Mr. Mackay, where the present drawing was made ; the habit of the plant partakes chiefly of the female parent, but the colour of the flowers, except the faint red mark in the centre, is that of the other ; it is rather singular that the colours are not more mixed, as in *P. Russelliana*, where they are quite intermediate between the two, the dark crimson and rose colour, producing a brilliant scarlet or blood colour. The present plant is desirable on account of its abundant flowering, which continues nearly all the Summer and till late in Autumn ; it may be grown either in the open border, or in rock-work, in the common garden soil, and is readily increased by dividing at the root.

Potentilla was a name given to this genus, on account of its powerful strengthening qualities, chiefly ascribed to *P. reptans*, which is still much in use amongst the country people in some of the western counties.



1. Calyx, surrounded by the five bractes, which are longer than the segments of the calyx. 2. The twenty Stamens spread out to show their unequal lengths. 3. Head of young Carpella divested of the other parts, showing its form, and the termination of the Styles. 4. A single one taken from the head.



J. D. Smith, del.

Pub. by J. E. B. 169 Piccadilly April 1881.

W. & A. G. & Co.

ERIOCOMA fragrans.

Fragrant Eriocoma.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam.* 3. p. 103.

Subordo X. HELIANTHÆ. Cassini.—**Tribus** MELAMPODÆ.

ERIOCOMA. *Involucrum* oligophyllum. *Receptaculum* paleatum: paleis cucullatis, mucronatis. *Flosculi radii* plures (4-10), ligulati, neutri; *disci* hermaphroditi, tubulosi, 5-dentati. *Achenia* cuneata, paleis persistentibus inclusa, apice calva.—Frutices (Mexicani) *erecti, ramosi*. Folia *opposita, simplicia, petiolata*. Capitula *terminalia, corymbosa*. *Flosculi* nivei. D. Don Mss.

E. fragrans, foliis cordato-oblongis dentatis subtùs tomentosis, corymbis compositis, corollæ fauce campanulatâ tubum subæquante. D. Don Mss.


Caulis fruticosus, erectus, ramosus, teres, 3-5-pedalis: *rami* cylindrici, leviter tuberculati; *ramuli* densè pubescentes. *Folia* opposita, petiolata, cordato-oblonga, acuminata, inæqualiter dentata v. dentato-serrata, trinervia, suprâ viridia, pilis brevissimis setaceis scabra, subtùs tomentosa, mollissima, canescentia, 2-3-uncialia, pollicem v. sesquipollicem lata; *inferiora* dentibus posticis 2 majoribus hastata, v. rariùs sublyrata. *Petoli* pollicares, semicylindrici, pubescentes, suprâ leviter canaliculati, basi parum incrassati. *Flores* terminales, copiosissimi, corymbosi, odore melleo fragrantissimi. *Corymbi* decompositi. *Pedunculi* teretes, hirsutissimi, canescentes. *Bracteolæ* lineari-spathulatæ, mucronulatæ, integerrimæ, pubescentes. *Involucrum* oligo-(5-7-) phylum: foliolis duplici ordine dispositis, lineari-spathulatis, mucronulatis, pubescentibus, inæqualibus. *Receptaculum* paleatum: *paleis* ovatis, cucullatis, acuminatis, membranceis, villosissimis, persistentibus. *Flosculi* nivei, succulenti, subite marcescentes; *radii* 4 v. 5, neutri, elliptico-oblongi, pruinosi, emarginati v. obtusè tridentati, nunc rudimento pistilli instructi; *disci* plures, hermaphroditi, tubulosi, 5-dentati: *tubo* tereti: *fauce* campanulatâ, extùs et intùs copiosè pilosâ, tubum vix longitudine adæquante: *laciniis* obtusiusculis, revolutis: *nervis* indistinctis. *Stamina* summo tubo inserta: *filamenta* angustè linearia, canaliculata, glabra, apice articulata: *antheræ* in tubum coalitæ, basi bidenticulatæ, appendiculâ ovatâ acutâ membranacea coronatæ. *Stigmata* lineari-lingulata, apiculata, papilloso-hispidula, revoluta, suprâ sulco exarata. *Achenia* cuneata, ancipiti-compressa, glabra, apice calva, paleis cucullatis fructu maturescente

auctis inclusa: disco annulo depresso integerrimo instructo. Pappus nullus. D. Don Mss.

"M. Kunth, who first established the genus, appears to have been acquainted with only one species, namely *E. floribunda*, which he describes as herbaceous, but it is most probably shrubby, like the other three species which I have added to the genus. The species are all natives of Mexico, from which country the subject of the present article was introduced in 1827, by Robert Barclay, Esq. in whose collection it flowered last Autumn for the first time. The plant is decidedly shrubby, and merits a place in every collection, from the abundance of its snowy heads of flowers, which have a very fragrant smell, resembling that of honey. The *Melampodeæ* constitute a very distinct group of the *Heliantheæ*, containing, besides the present genus, *Melampodium*, *Polytnia*, *Unxia*, *Jægèria*, and *Montanda*. The capitulum of *Eriocomia* is really simple, as is proved by the expansion of the florets being from circumference to centre, although from the defective nature of the involucre, and the total separation of the florets by the enlarged persistent paleæ, one would be apt to conclude that it was compound. This genus agrees with *Echinops* in the form and consistence of its florets, and also in the anthers being furnished with two teeth at their base."

For the above account of the present interesting genus, we are indebted to Mr. David Don, who, from the richness of Mr. Lambert's extensive Herbarium, has been enabled to add three more species to the genus, besides the present, one only being before described. In Mr. Barclay's collection it was planted by the side of a wall in the Flower Garden, where it produced its numerous panicles of fragrant flowers last September and October; it needs the protection of a mat in severe frosty weather in Winter, by which means the greater part of the plants from Mexico, and the temperate parts of South America, will succeed very well; by this means *Escallonia floribunda* has stood well with us this severe Winter, and is now growing very fine.

The generic name is derived from *εριον*, wool, and *κομα*, a lock of hair, from the numerous woolly hairs, with which the paleæ are covered.



1. Back view of the Involucre. 2. One of the scales from the Receptacle, that surrounds the discal florets. 3. Ray, surrounded by a scale at the base. 4. Floret of the Disk. 5. The same split open, to show the situation of the nerves. 6. The 5 Stamens, their filaments distinct, the anthers united into a tube, terminated by broadish membranaceous points. Seed terminated by the Style and bifid Stigma.



Salvia sp.

Pub. by J. R. R. in 1864. *Ann. Bot. Soc. Lond.*

TRIÓSTEUM perfoliatum.

Perfoliate Fever-root.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. CAPRIFOLIACEÆ. *Kunth Synops.* 3. p. 71.

Tribus I. CAPRIFOLIÆ. *Corolla monopetala. Stylus unicus.*

TRIÓSTEUM. *Calyx* 5-partitus, persistens: laciniis linearibus patentibus. *Corolla* tubulosa, longitudine fere calycis, limbo tubo brevior recto, lobis 5 subæqualibus rotundatis. *Stamina* 5 inclusa. *Stigma* oblongum, incrassatum, sub-5-lobum. *Bacca* coriacea, basi calyce inclusa, hujusque laciniis coronata, obovato-trigona, trilocularis. *Semina* 3, ossea elliptica, altero latere striis 3 obscuris, tunica exteriore crassa, ossea, interiore membranacea subfriabili.

T. perfoliatum, foliis ovalibus acuminatis basi abrupte angustatis latius angustiusve connatis, floribus sessilibus verticillatis, corollæ obscure purpurea.

Triosteum perfoliatum. *Willden. sp. pl.* 1. p. 990. *Pursh fl. amer. sept.* 1. p. 162. *Pers. syn.* 1. p. 214. *Schkuhr handb.* 1. p. 135. t. 41. *Ram. et Schult. syst.* 5. p. 221. *Spreng. syst. veg.* 1. p. 757. *Hort. Kew. ed.* 2. v. 1. p. 381. *Nutt. gen. amer.* 1. p. 139. *Dill. elth.* t. 293. f. 378.

Roots perennial, thick and fleshy. *Stems* simple, erect, 18 inches to 2 feet high, woody, hollow, slightly viscous, densely pubescent. *Leaves* large, opposite, connate and perfoliate at the base, oval, abruptly attenuated near the base, taper-pointed, rugose, undulate, reticulately veined, repandly crenate, pubescent on both sides, the nerves clothed with short white hairs; of a yellowish green colour, paler underneath. *Flowers* whorled, axillary, sessile, generally 3 on each side, of a dark brownish purple. *Bractes* linear, somewhat keeled, clothed with a viscous pubescence. *Calyx* deeply 5-cleft, persistent: segments linear, scarcely acute, slightly keeled at the back, of a brownish purple, spreading, pubescent and fringed, the 2 outer ones longest. *Corolla* tubular, a little curved at the base, 5-lobed, viscosely pubescent, about the length of the calyx, limb shorter than the tube: lobes nearly equal, rounded. *Stamens* 5, inserted in the tube: *filaments* villosely hairy, attached to the back of the anthers. *Style* exserted, very hairy. *Stigma* thick, oblong, slightly 5-lobed, of a dark green colour. *Ovarium* pubescent, crowned with the persistent calyx.

The present curious plant is nearly related to the Honeysuckle, and is a stately upright, herbaceous, perennial plant; its flowers are produced from June to August: according to Pursh, it is found in rich rocky grounds, principally lime-stone soil, from New England to Carolina, and is even rare in its native situation: it is seldom to be met with in our collections, chiefly owing, we believe, to the plants being generally planted in pots, where the roots have not sufficient room to spread themselves, and as they are also frequently exposed to the cold in Winter, the mould becomes all frozen through, which occasions them to perish: this would not be the case, were they planted pretty deep in the flower borders, in a rich soil; the roots would then have room to spread, and the frost would not be so liable to injure them: they may be readily increased by dividing at the root, or by seeds, which are frequently ripened.

Our drawing was made from a plant at the Nursery of Mr. Colvill, King's-road, Chelsea, who imported it the Spring before it flowered from New York, having been procured from the Nursery of Mr. W. Prince, at Long Island; we also received specimens of it from Mr. Anderson, Curator of the Apothecaries' Company's Garden, at Chelsea, who obtained the plants from Mr. Hogg, Nurseryman, at New York.

The generic name is derived from *τρις*, three, and *οστεον*, a bone, from the three bony seeds, produced in each berry.



1. Calyx, showing the different lengths of the segments. 2. Corolla spread open, to show the inside, and the insertion of the five Stamens. 3. Stamen detached, to show the hairy filament. 4. Style detached, to show its hairiness, terminated by its oblong, 5-lobed Stigma.



E. D. Smith del.

Pub. by J. Ridgway 169 Broadway New York 1890

Hortus.

PHLÓX penduliflora.

Nodding-flowered Lychnidea.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. POLEMONIACEÆ. *D. Don obs. on Polem. p. 4.*

PHLOX. Supra fol. 7. series 2.

P. penduliflora, caule subflexuoso obsolete quadrangulo scabro-pubescente maculato, foliis oblongo-lanceolatis acuminatis subsessilibus : supra glabris nitidis : margine et nervis subtus scabris, corymbis multifloris paniculatis ante anthesin nutantibus, calycibus pubescentibus : laciniis lanceolatis mucronatis, corollæ laciniis rotundatis imbricatis.

Phlox penduliflora. *Swt. hort. brit. ed. 2. p. 368. Penny hort. eps. p. 38.*

Stems from 3 to 4 feet high, more or less flexuose, slightly and bluntly quadrangular, spotted with numerous small purple spots, very rough, occasioned by a short rigid pubescence ; young ones hairy. *Leaves* tapering to a long slender point, nearly sessile : lower ones narrowly lanceolate, and hairy at the base, and on the nerves underneath : upper ones cordately ovate, the intermediate ones oblongly lanceolate, all tapering to a slender point, smooth and glossy on the upper side, but pale underneath ; margins and midrib underneath very rough. *Flowers* of a light rosy purple, in a close panicle, sweet-scented. *Corymbs* several-flowered, rather crowded, nodding before the flowers expansion. *Bractes* lanceolate, terminated by a sharp brownish point. *Pedicles* short, pubescent, the hairs in small tufts, short and rigid. *Calyx* pubescent, 5-toothed or 5-cleft, 5-angular, more or less tinged with purple, and membranaceous between the angles, the teeth or segments erect, broadly lanceolate, and terminated by sharp brown mucrones. *Corolla* tubular, with a 5-cleft spreading limb : tube a little curved, smooth, purple, more than twice the length of the segments of the limb : laciniæ very broad and rounded, very much imbricate. *Stamens* 5, inserted in different parts of the tube, two a little exserted : *pollen* golden yellow. *Ovarium* smooth. *Style* smooth, very long and slender, exserted beyond the flower. *Stigma* trifid, the segments obtuse, slightly fimbriate, spreading.

This beautiful plant is of late introduction; the first time we heard of it was in the year 1824, at Mr. Lee's Nursery, who most probably introduced it: when in flower or bud it is readily distinguished from all its congeners, by its drooping panicle before the flowers expansion, and also when in bloom by its broad imbricate petals; it is a fine stately plant, and in the collection of Robert Barclay, Esq. at Bury-hill, where it was planted in a bed of peat mould, it had attained an amazing height and size, and made a magnificent appearance when covered with its splendid flowers, which are also very fragrant; and from a specimen sent us from his rich collection, the present figure was made; we also received fine specimens of it afterwards from the Nursery of Messrs. Young, at Epsom, and a plant of it from Mr. Wheeler's Nursery, at Warminster, who, we believe, has one of the first collections of this genus in the country, the different species of which are very desirable, as many of them come into flower in the Autumn, when most of the other flowers are over for the season.

For the derivation of the generic name, see folio 7, series 2.



1. Calyx. 2. Tube of the Corolla spread open, to show the insertion of the 5 Stamens.
3. Ovarium, terminated by the Style and trifold Stigma.



E. D. Smith, 1871.

Pub. by the Academy of Natural Sciences, 1871.

Fig. 1.

GOODYERA pubescens.

Downy Goodyera.

Linnean Class and Order. GYNANDRIA MONANDRIA.

Natural Order. ORCHIDÆE. *Brown prodr.* 309.

Sect. II. MONANDRÆ. *Anthera* stigmati parallela persistens. *Massæ pollinis* v. *farinacæ* v. e *corpusculis* angulatis; apicibus stigmati affixæ.

GOODYERA. *Perianthium* ringens: foliolis exterioribus anticis labello inferne gibboso superne indiviso suppositis. *Columna* libera. *Pollen* angulatum. *Brown.*

G. pubescens, foliis radicalibus ovatis petiolatis reticulato-venosis, scapo vaginato floribusque pubescentibus, perianthii foliolis ovatis, labello ovato acuminato.

Goodyera pubescens. *Brown Hort. Kew. ed. 2. v. 5. p. 198. Lodd. bot. cab. t. 1. Lindl. collect. bot. t. 25. Nutt. gen. amer. 2. p. 190. Spreng. syst. 3. p. 703.*

Neottia pubescens. *Willden. sp. pl. 4. p. 76. Pursh fl. amer. sept. 2. p. 590. Pers. syn. 2. p. 511.*

Stems fleshy, creeping, and producing fleshy roots from the underside of the stem. *Leaves* ovate, acute, 5 to 7-nerved, and reticulately veined with prominent white veins, punctate with innumerable minute dots, a little undulate at the margins, attenuated at the base into a sort of broad flat footstalk: underside paler, and the veins there inconspicuous. *Scape* from 6 inches to a foot in height, terminated by a long spike of flowers, densely clothed with a woolly pubescence. *Bractes* lanceolate, taper-pointed, keeled, also clothed with the same sort of pubescence. *Flowers* white, in a long terminal spike. *Ovarium* twisted, thickly clothed with a woolly pubescence. *Perianthium* pubescent, gibbous below, the leaflets ovate. *Labellum* ovate, with a long slender point. *Pollen-masses* composed of angular grains.

Our drawing of this interesting and singular species was taken from a plant in the collection of Robert Barclay, Esq. of Bury-hill, where it flowered in the greatest perfection; its flowers are not so showy, as many of the orchideous plants, but its beautifully variegated foliage makes up sufficiently

for that deficiency; it is a native of North America, and thrives best when planted out in a bed of peat earth, amongst other American plants, there not being sufficient room in a pot for its roots to spread, nor sufficient soil to produce fine foliage, which adds greatly to its beauty. Pursh mentions it in his Flora of North America, as growing in shady and rocky situations, from Canada to Florida, where it flowers in July; and adds, "This plant has lately made a great noise among the country people, as infallibly curing the bite of a mad dog." Should such really be the case, it would be well worth cultivating on that account; at any rate it is deserving the trial, should an opportunity occur; it may be increased by dividing at the root.

In the Botanical Magazine, t. 2540. the *G. tessellata* of Loddiges' Botanical Cabinet, is given as a variety of this plant, but it is nearer related to the British *G. repens*, and as such was considered by Pursh; but all the three species are doubtless very distinct from each other.

The generic name was given by Mr. Brown, in memory of John Goodyer, a British Botanist.



1. Perianthium spread open, to show the 5 leaflets, and the twisted Ovarium at the base. 2. Labellum. 3. Column, bearing the Style, showing the two-lobed anther in front, the pollen masses escaped from the hood, and divaricated, each seated on a pedicle at the base.



K.D. Smith del.

Pub. by J. B. Baughman, 1882, New York, N.Y.

SOLDANELLA pusilla.

Swiss Soldanella.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. PRIMULACEÆ. *Brown prodr.* p. 427.

SOLDANELLA. *Calyx* 5-partitus; laciniis lanceolatis. *Corolla* campanulato-infundibuliformis fimbriato-lacera. *Stamina* 5, filamentis antheras adnatas sagittatas superantibus. *Stigma* simplex. *Caprula* oblonga, cylindrica, striata, apice multivalvis. *Semina* numerosa, minima, acuminata.—*Herbæ* acaules, cæspitosæ. *Folia* rotundo-cordata, subcrenata, supra nitida. *Scapi* nudi, pauciflori. *Flores* nutantes, cæruleascentes.

S. pusilla, foliis rotundo-cordatis reniformibusve obsolete repando-crenulatis, scapo 2-3-floro pubescente, laciniis calycis linearibus acutis arcte adpressis, corolla campanulata vix ad medium laciniata, stylo exserto.

Soldanella pusilla. *Baumgarten et Hop. flora. ex Steud. nomencl.* p. 797.

Swit. hort. brit. p. 329.

Soldanella Clusii. *Schleicher. Thomas. Suter flor. helv.* p. 137. *Lodd. bot. cab. t.* 872. *non* Schmidt, *nec* Sims *Bot. mag.*

Soldanella minima. *Hop. Taschenb.* 1805. *non* *Hop. Cent. nec aliorum.*

Root perennial, tufted, producing numerous short young shoots in various directions, which extend round to a very short distance, and throw down roots into the ground as they proceed. *Leaves* numerous, roundly cordate, or sometimes inclining to kidney-shaped, slightly recurved at the margins, very slightly repandly crenate, of a thick leathery substance, the minute teeth horny: of a bright glossy smooth green on the upper side, underneath paler. *Petioles* short, purple, slightly pubescent, winged a little, just below the leaf, flattened on the upper side, and convex below, somewhat widened at the base. *Scapes* erect, longer than the leaves, purplish, thickly clothed with a short pubescence, 2 to 3-flowered. *Bractes* variable in length, 2 or 3, according to the number of flowers; upper one longest, lanceolate, bluntish, pressed tight to the pedicle, which it partly sheaths, and extends about half its length: the others smaller and spreading. *Pedicles* unequal in length, purplish, clothed with a short pubescence, turned round of an arch. *Flowers* nodding, pale-blue, tinged with flesh-colour, about half the

size of *S. alpina*. *Calyx* 5-parted; the segments narrow, linear, acute, close-pressed to the corolla: (in *S. alpina* they are nearly double the width and spreading.) *Corolla* bell-shaped, narrow and tubular below, gradually widening upwards, but never expanding like *S. alpina*; divided or jagged, scarcely to the middle, into numerous narrow unequal segments. *Stamens* 5, inserted in the throat. *Filaments* flat, slightly winged on each side below the anthers, extending up their back and terminating beyond them in a bluntish point: *anthers* slightly sagittate at the base, joined by their back to the filaments, two-celled. *Ovarium* pyramidal, smooth. *Style* long and slender, exserted to some length beyond the corolla, thickest at the base, slightly tapering towards the point. *Stigma* a very small simple head.

We have this Spring had the opportunity of examining and comparing the whole of the four species belonging to this genus, and find them all sufficiently distinct from each other; the present is readily distinguished from *S. alpina* by its smaller flower, and long style, which is considerably extended beyond the corolla, while that of *S. alpina* is shorter than the corolla, and included within it; we have therefore not the least doubt but *S. montana* of Wahlenberg, described with exserted styles, is in reality the present species, though referred by Roemer and Schultes to *S. alpina*, and who, we suspect, has confused that species with the present, as they have not noticed it; we intend hereafter to publish figures of the other two species, that their differences may be seen, and have discarded the name of *S. Clusii* altogether, as it only tends to mislead, three of its species having received that name by different authors: all the species are quite hardy, are well adapted for small pots or rock-work, and thrive best in a light sandy soil; they may either be increased by seeds, or dividing at the root. Our drawing was made from a plant at the Nursery of Mr. Colvill, who received several of them from Mr. Schleicher, of Bex, in Switzerland.

The generic name is derived from *σολος*, a round plate or quoit, and *ελλα*, a diminution: from its small round leaves, resembling small flat plates, and the flowers may not be unaptly compared to that of quois.



1. Calyx, divested of the Corolla. 2. Corolla spread open, divested of the Stamens.
3. Lower part of the same cut off, to show the insertion of the Stamens, and the form of the anthers, which are attached by their back to the filaments, that extends beyond them.
4. Ovarium, terminated by the Style, and small capitate Stigma.



SAXIFRAGA retusa.

Purple-flowered Saxifrage.

Linnean Class and Order. DECANDRIA DIGYNIA.

Natural Order. SAXIFRAGEÆ. *Juss. gen.* p. 308.

SAXIFRAGA. *Calyx* 5-fidus. *Petala* 5, integra. *Stamina* 10. *Styli* 2, persistentes. *Capsula* 2-locularis, 2-valvis è stylis persistentibus birostris: intra rostra foramine orbiculari aperiens, polysperma. *Semina* minuta, lævia. *D. Don Linn. trans.* v. 13. p. 343.

Sect. 5. SAXIFRAGÆ VERÆ. *Calyx* 5-fidus. *Petala* sessilia, perigyna. *Stamina* perigyna; *filamenta* plana, sensim attenuata. *Stigma* patentia, plana, spathulata, pube brevi barbata. *Capsula* calyce obvoluta et arcuè connata. *Semina* obovata.—*Herbæ perennes v. rarissimè annuæ, humiles, densè cæspitosæ plerumque surculosæ. Folia indivisa v. variè partita in pluribus rosulata. Caules polyphylli rarè nudi, multi-v. pauciflori. Flores albi v. lutei aut rarissimè rosei.*

§ *Foliis indivisis plerumque rosulatis impetiolatis.*

S. retusa, caule subtrifloro, foliis imbricatis oblongo-trigonis acutis supra perforato-punctatis, petalis lanceolatis acutis, stylis corollam longè superantibus. *D. Don Linn. trans.* v. 13. p. 400.

Saxifraga retusa. *Gouan illus.* 28. t. 18. f. 1. *Lapeyr. pyren. saxif.* p. 38. t. 18. *Lam. et DC. flor. franc.* iv. p. 365. *Pers. syn.* 1. p. 488. *Sternb. saxif.* p. 37. *Wahlen. carpath.* 118. *Spreng. syst.* 2. p. 306. n. 62. *Swt. hort. brit.* p. 182. n. 49. *edit.* 2. p. 241. n. 54.

Saxifraga purpurea. *All. ped.* 1531. t. 21. f. 2.

Antiphylla retusa. *Haworth Saxifrageorum enumeratio.* p. 44.

Perennial, growing in a close dense tuft, producing numerous branches in all directions: *branches* procumbent, rigid, branching, densely clothed with leaves. *Leaves* small, opposite, closely imbricate in four ranks, succulent, oblong, three sided; or obsoletely keeled on the under side; flat on the upper side, but hollow at the base, smooth and glossy, fringed at the base: perforated with three minute holes on the upper side, one a little within the point, and one on each side, the points acute and sometimes slightly recurved. *Flower-stems* erect, from an inch to two inches in height, two to four flowered, densely clothed with spreading villous glandular hairs, bearing a few leaves, that are very succulent, obovate, keeled at the back. *Flowers* of a rosy purple. *Pedicles* slender, and with the calyx

densely clothed with glandular hairs. *Calyx* bell-shaped : five-cleft : the segments oblong, obtuse, keeled at the back, smooth and glossy. *Petals* 5, ovately lanceolate, acute, keeled at the back, three-nerved, tapering to the base in a long slender claw. *Stamens* 10; *filaments* long and slender, tapering to the point, pale lilac; *anthers* round, violet. *Styles* two, rather shorter than the filaments, straight, lilac, each terminated by a minute headed Stigma.

For the opportunity of giving so fine a figure of this beautiful and rare little plant, we are obliged to Mr. W. Anderson, Curator of the Apothecaries' Garden at Chelsea, where it flowered luxuriantly and abundantly last Spring: the plants were received from Mr. Schleicher, of Bex, in Switzerland, and appear to thrive as well as *S. oppositifolia*, though it has generally been supposed to be difficult of cultivation; a very sandy peat mixed with a little light sandy loam is the best soil for it, and it may either be planted in rock-work, in a sheltered situation, or grown in small pots, which must be well drained with a handful of potsherds broken small, that it may not become stagnated with too much moisture; in Winter, if there should set in a dry frost, it will need a little protection; a little litter of any kind, or a mat, will be all that is needed; or should there be a good covering of snow on the ground, that will be sufficient, as it is a native of the high mountainous parts of Switzerland, where it is covered with snow several months in the year: it is readily increased by seeds, or dividing at the root.

According to Linnæus, the generic name is derived from the Latin, and is intended to represent the plants composing it, as growing among broken rocks, which is the natural habitation of many of the species, and are therefore very properly termed rock-plants.



1. Flower detached, showing the bracte at the base. 2. Calyx, divested of the petals and stamens. 3. The same spread open, showing the petals alternating with the segments of the calyx. 4. The 10 Stamens, showing their insertion. 5. Ovarium, terminated by the two Styles, and small capitate Stigmas. 6. Leaf, showing the three punctures on the upper side, and the fringed base.



Ed. 1872. 187.

Ed. 1872. 187. 1872. 1872.

Ed. 1872. 187.

RHODODÉNDRON *Smithii*.

Smith's hybrid Rhododendron.

Linnean Class & Order. PENT-DECANDRIA MONOGYNIA.

Natural Order. ERICEÆ. *D. Don prodr. flor. nepal.* p. 148.

Subordo III. RHODORACEÆ. *D. Don loc. cit.* p. 152.

RHODODENDRON. *Supra folio 10. series 2.*

Sect. I. RHODODENDRA. Corolla campanulata aut subrotata. *Stamina* 10.—Frutices v. Arbores, sempervirentes aut rarissime subdeciduis; ramis glabris v. pulverulento-pubescentibus, raro hirsutis. *Folia* coriacea, oblonga, ovata, v. elliptica, glabra aut subtu subtomentosa. *Flores* corymbosi, speciosi, coccinei, rosei, purpurei, lilacini, albi, aut lutei.

R. Smithii, foliis elongato-lanceolatis acutis penninerviis reticulato-venosis: junioribus viscoso-villosis subtus albo-tomentosis: adultis glabris subtus pallidioribus, corymbis confertis multifloris, lacinis calycis inæqualibus submembranaceis: inferiori obsoleti, corollis 5-angularibus campanulatis limbo patentibus, staminibus inclusis, capsulâ 10-loculari tomentosâ.

Rhododendron Smithii. Swt. hort. brit. ed. 2. p. 342.

A handsome evergreen shrub, or small tree. *Leaves* alternate, but forming a sort of crowded whorl, oblongly or elongately lanceolate, acute, feather-nerved, reticulately veined, terminated in a short yellow horny point, with a strong rigid midrib extending from the base to the point: when young viscous, and thickly clothed with villous wool, and short white down at the back: old ones smooth, of a bright glossy green on the upper side, paler underneath. *Petioles* short and stout, rugged, pubescent, purplish, viscous when young. *Flowers* of a rosy purple, approaching to crimson. *Corymb* terminal, many-flowered, about twenty in each on our plant. *Bractes* variable in form and substance, clothed with silky down, and fringed, deciduous, the outer ones brown, rigid, ovate, concave, sharp-pointed; the inner ones between the flowers spatulate or lanceolate, membranaceous. *Peduncles* short, viscous, pubescent. *Calyx* of 5 very unequal segments, opposite to the furrows of the corolla: the two upper ones longest, obtuse, membranaceous; the two side ones shorter, the points bent inwards; lower one very short, the point also bent inwards. *Corolla* bell-shaped, with a spreading 5-cleft limb, elegantly spotted with numer-

ous dark spots on the inside at the back : tube bluntly 5-angular, deeply 5-channelled : segments of the limb broad, rounded, much undulate and crumpled, spreading. *Stamens* 10, unequal in length, scarcely so long as the corolla : *filaments* unequal in length, ascending, thickest at the base, and tapering upwards, densely clothed with spreading hairs, from the base to about half way up. *Ovarium* 10-angular! in our specimen, clothed with a ferruginous tomentum. *Style* flesh-coloured, smooth and glossy, bent downwards like a bow, the point ascending, about the length of the stamens. *Stigma* purple, capitate, warted, glutinous.

This magnificent plant is of hybrid origin, and was first raised from seed by Mr. W. Smith, of Coombe Wood, near Wimbledon, Surrey, in compliment to whom we have named it : its parents were *R. pònticum* that had been fertilized with the pollen of *R. arbòreum*, and is one of the hybrids that we have before mentioned in some of our former Numbers. Mr. Smith at the same time raised others from *R. arbòreum*, fertilized by *R. pònticum*, and some that were fertilized by *Azàlea pòntica*, but none of these have yet flowered ; the present specimen flowered at the Nursery of Mr. Colvill, in the King's-road, Chelsea, where our drawing was made ; the habit of the plant, form of the leaves and flowers, and the colour of the flowers, partake as near as possible of an equal share of both species, but the ovary is 10-angular, and clothed with ferruginous down, like *R. arbòreum* ! there cannot be the least doubt but it will prove quite hardy, as the female parent was *R. pònticum* ; like the other plants belonging to this genus, it requires to be planted in peat soil, and may be increased by layers ; or young cuttings, with their wood nearly ripened, taken off at a joint, and planted in pots of sand, placed in a frame, or under a hand-glass in a little bottom heat, will not be difficult to root.

For the explanation of the generic name, see folio 10 of the second series.



1. Bracte. 2. Calyx, showing the unequal teeth. 3. The 10 Stamens. 4. Ovarium terminated by the Style and simple capitate Stigma.



1. Base of the plant

2. Stem and leaves

PLECTOCÉPHALUS americanus.

Long-rayed Plectocephalus.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam.* 3. p. 103.

Subordo III. **CARDUACEÆ.** *Kth.*—**Tribus** II. **CENTAURÆ.** *DC.*

Cass.

PLECTOCEPHALUS. *Involucrum* globosum, imbricatum: *squamarum appendicibus* cartilagineis, pectinatis. *Receptaculum* paleis setaceo-divisis copiosè vestitum. *Flosculi marginales* neutri, infundibuliformes, radiati; *disci* hermaphroditi, tubulosi, quinquefidi. *Pappus* uniformis, pilosus, scaber, caducus.—*Herbæ (americanæ)* foliis indivisis pinnatifidisve. *Capitula solitaria.* *Flosculi lilacini.* *Umbilicus unilateralis.* *Pappus cinereis v. spadiceus.* *D. Don Mss.*

P. americanus, foliis oblongis membranaceis indivisis, pedunculis apice ventricosis, involucri squamis exterioribus appendicibus ter brevioribus.
D. Don Mss.

Centaurea americana. *Nutt. in journ. acad. nat. sc. phil.* 2. p. 117. *Barton flor. amer.* 2. t. 60. *Colla in act. taur.* 31. p. 119. t. 6. non *Spreng.*

Centaurea Nuttallii. *Spreng. syst. veg.* 4. pars. 2. add. p. 298.

Centaurea grandiflora. *Sesse et Mocinno Mss.*

Herba facie *Jaceæ Phrygiæ*, sed plurimum robustior. *Radix* fibrosa, annua. *Caulis* altitudine varians, sæpè orgyialis, erectus, ramosus, teres, firmus, sulcatus, angulis parùm prominulis, crassitie digiti minoris. *Rami* simplices, sulcis magis profundis, intùs cavi, apice sub involucrio ventricosi; nunc rariùs lanuginosi. *Folia* alterna, sessilia, oblonga, membranacea, indivisa, margine plana, apice mucronata; mucrone sæpiùs elongato, setaceo, deciduo, basi dilatata, nec attenuata, utrinque gramineo-viridia, ut cum caulis dimidio superiore ramisque papillis copiosissimis, minutis, elevatis, callosis scabra, quandoque canescentia, subtùs impressè punctata, costà prominulà, 2-3-uncialia, semipollicem lata; *inferiora* magis minusve dentata; *superiora* plerumque integerrima, longiùs aristata. *Capitula* in apice ramorum solitaria, globosa, *pomi sylvestris* magnitudine. *Involucri squamæ* lanceolatæ, cartilagineæ, margine membranacæ, virides, multiplici ordine imbricatæ; striis plurimis æquidistantibus notatæ; *exteriorum appendicibus* ovato-lanceolatis, acuminatis, fuscis, cartilagineo-scariosis, pectinato-pinnatifidis, ipsà squamà ter longioribus; *interiorum* ovatæ, purpureo-fuscescentes; *segmentis* subulatis, compressis, subcallosis, puberulis, lutescentibus, intertaxis; terminali majore: *intimis* linearibus, elongatis, conniventibus, apice scariosis, laciniatis. *Receptaculum* paleis in lacinias tenuissimè setaceas, complanatas, demùm spiralitèr tortuosas profundè divisis, albis

vestitum. *Flosculi marginales* infundibuliformes, neutri, copiosi, radiati, patentissimi, lilacini, sesquipollicares, tubo filiformi, tenui, limbo 5-partiti, nunc rarius 3 v. 6-partiti: *laciniis* linearibus, acutis, divaricatis, nervis intra marginalibus; *disci* numerosissimi, hermaphroditi, tubulosi, pallidiores: *tubo* angusto, 5-angulo: *fauce* amplior, tubulosâ: *limbo* 5-partito: *segmentis* linearibus, obtusis, erectis, nervis primariis ad sinum divisis, ramis marginalibus. *Stamina* summo tubo inserta: *filamenta* compressa, copiose papilloso-glandulosa: *antheræ* in tubum connatæ, appendiculâ solutâ, subulatâ, obtusulâ, apice uncinatâ, ipsâ quadruplò brevior coronatæ, basi ligulâ simplici, obtusâ, bilobâ, membranaceâ instructæ. *Ovarium* minutè papillosum. *Stylus* 5-angulus, basi incrassatus. *Stigmata* soluta, linguata, obtusa, pruinosa, recurva. *Achenia* levitè compressa, glabra, atro-fuscescentia, basi interiore umbilico concavo exsculpta. *Pappus* uniformis, cinereus: *radiis* triplici ordine copiosissimis, subsetaceis, inæqualibus, spinuloso-denticulatis, scabris, basi solutis, caducis. *D. Don Mss.*

“ This group, consisting now of four species, three of which are natives of Chile, I have ventured to separate from *Cyanus*, on account of the structure of its pappus, which consists of numerous, uniform, rough, hair-like bristles, of unequal length, and disposed in a triple series. In *Cyanus* the exterior rays of the pappus are short, broad, paleaceous, and imbricated, serrulate at the margin; but how far the structure of this organ, in this tribe of *Carduaceæ*, is to be relied on, as a mark of distinction, I confess I have been unable to satisfy myself, as in some species of *Jacea* it is either rudimentary, or wholly wanting. The Mexican specimens are more canescent, but in other respects both plants agree.”

For the whole of the above account, we are indebted to the kindness of Mr. David Don, who has long been engaged in a paper on the American Compositæ. The present beautiful subject is an annual plant, a native of the Arkansa territory, in North America, where it was discovered by Mr. T. Nuttall, and from seeds sent by him to Robert Barclay, Esq. of Bury-hill, it was first introduced to this country; and from fine specimens communicated from Mr. Barclay's collection, the present figure was taken some years back, but we delayed publishing it as a *Centaurea*, and could not reconcile it with *Cyanus*, we therefore waited to get it settled in a proper genus; it is certainly a most beautiful plant, and deserving a place in every collection; if sown in the open ground, the latter end of March or beginning of April is the best time, as the plants will otherwise not have time to ripen their seeds; but a better way is to treat it as a half hardy annual, to sow the seeds in pots in a frame or in the Greenhouse, and to transplant the young plants into the open borders.

The generic name is derived from *πλεκτός*, plaited, and *κεφαλή*, a head, from the plaited leaflets of the Involucrum, that surround the head of flowers.



1. Capitulum split through the centre, to show the hairy receptacle. 2. Barren radiated floret, producing neither stamens or style. 3. Fertile floret of the disk, producing stamens and style, and bearing perfect seed. 4. The 5 Stamens laid open, showing the distinct filaments, and the 5 connected anthers, that are each furnished with a tooth on each side at the base. 5. Seed, showing its hairy pappus, and terminated by the Style and bifid Stigma. 6. Anther detached.

PRÍMULA villosa.

*Villous Primrose.**Linnean Class and Order.* PENTANDRIA MONOGYNIA.*Natural Order.* PRIMULACEÆ. *Brown prodr.* 427.*PRIMULA.* Supra fol. 5. series 2.

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- P. villosa*, foliis planis ovato-oblongis serrulatis villosis-viscosis margine ciliatis, umbellis plurifloris erectis, pedunculis calycibusque viscosis, tubo corollæ calyce duplo longiore, corollæ tubo et fauce villosula.
- Primula villosa.* *Jacq. misc. aust.* 1. p. 159. *Flor. aust.* 5. t. 27. *Willd. spec.* 1. p. 803. *Lehm. monog. primul.* p. 77. *Sturm. fl. germ. fasc.* 24. *Trattin. tabular.* t. 438. *Rœm. et Schult. syst.* 4. p. 147.
-

Stem short, erect. *Leaves* tufted, flat, oblong or ovate, slightly villous, and covered with a viscous substance, toothed with rounded bluntish teeth, from four to six on each side of the leaf, attenuated at the base into a sort of footstalk. *Scape* cylindrical, densely clothed with short white pellucid hairs, as are the pedicles and calyx. *Umbel* several-flowered. *Involucre* of several short cordately ovate, obtuse, viscous bractes, with sometimes a long leafy one or two intermixed. *Pedicles* slender, gradually thickening upwards, about three times longer than the calyx. *Calyx* short, viscous, and clothed with short hairs, tubular, deeply 5-toothed; teeth ovate, blunt, fringed. *Corolla* reddish purple, tubular, tube clothed with short hairs, about twice the length of the calyx; limb spreading, obcordate, deeply notched; lacinix nearly as long as the tube: mouth clothed with short down. *Stamens* 5, inserted in the tube: *filaments* short, joined to the base of the anthers. *Style* smooth, included in the tube. *Stigma* capitate, point depressed.

The present plant, and some others to which it is nearly related, appear to be less understood, and in more confusion, than any of the other part of the genus, several having been confounded under *P. villòsa*; those have in part been set to rights by Lehmann in his Monograph of the genus. The figure of the Botanical Magazine, t. 14, generally given as a

synonym to *P. pubescens*, with a mark of doubt, appears to us to have been done from two different species, most probably the present and *P. pubescens*, the outline being probably from one species, and the colouring and finishing up from another; the shape of the calyx, if correct, will at once distinguish it from the present: *P. ciliata* of Lehmann is also a nearly related species; and as well as we can at present judge, is the same as *P. decora* of the Botanical Magazine, and Loddiges' Botanical Cabinet; plants of it, as well as the present, were received by Mr. Colvill, from Mr. Schleicher, of Bex, in Switzerland; the *P. villòsa* var. *alba*, of the Botanical Magazine, t. 1161, is certainly no variety of this species, nor is it nearer related to *P. Auricula*, of which it is supposed to be a variety by Rømer and Schultes; it is nearer *P. helvética*, of Loddiges' Botanical Cabinet, than either of those. *P. nivea*, of Fischer, the *P. nivàlis* of the gardens, but not of Pallas, is certainly a very different species from either of these, and appears not to be taken up by any botanist, in any general work; it seems to be nearly allied to *P. microcalyx* of Lehmann; and, like that species, has deeply notched, smooth leaves, and a very small calyx. Is not *P. helvética* the *P. latifolia* of Lapeyrouse? We have not yet had an opportunity of examining his figure; but, from the description, we suspect they cannot be very different.

The present, as well as the whole of the above enumerated species, are handsome Spring flowering plants, coming into bloom before many of the more gaudy flowers are expanded; they are therefore very desirable plants to grow in small pots, or in rock-work, succeeding well in a light sandy loam, mixed with a little peat to keep it open, and the covering of a mat or any other slight covering in severe dry frosty weather; they are readily increased by dividing at the root, or by seeds, which should be sown as soon as ripe, otherwise they will not come up till the following season.

For the derivation of the generic name, see folio 5, series 2.



1. Calyx spread open, showing the ovarium, terminated by the Style and capitate Stigma. 2. Corolla spread open, to show the insertion of the 5 Stamens, and its villous tube.



SOLDANELLA minima.*Least Soldanella.**Linnean Class and Order.* PENTANDRIA MONOGYNIA.*Natural Order.* PRIMULACEÆ. *Brown prodr.* 1. p. 427.*SOLDANELLA.* Supra folio 48. series 2.

S. minima, foliis orbiculatis obsolete crenulatis integerrimisve, scapo sub-unifloro pubescente, laciniis calycis lanceolatis acutis arcuè adpressis, corollis subcylindricis intus lineatis, stylo incluso.

Soldanella minima. *Hoppe in Sturm. fl. germ. fasc.* 20. *Schult. fl. aust. ed.* 2. 1. p. 373. *Wahlenb. carpath. p.* 56. *Rœm. et Schult. syst.* v. 4. p. 132. *Swt. hort. brit. p.* 329. *edit.* 2. p. 423.

Perennial, tufted, producing numerous short branches, which soon form a dense tuft. *Leaves* very small, orbicular, entire, or very slightly crenulate at the edges, of a bright glossy green on the upper side, and paler underneath. *Petioles* short and slender, tinged with purple, and clothed with a glandular pubescence. *Scapes* erect, stout, about the length of the finger, densely clothed with a rough glandular pubescence, generally 1-flowered, but occasionally producing two. *Flower* bell-shaped, nearly cylindrical, but spread a little at the mouth, of a pale blue or lilac, nodding. *Bractes* 2, at the base of the pedicle, unequal in length, one about half the length of the pedicle, the other about half that length, thinly clothed with short glandular hairs, as is also the calyx. *Pedicles* very short, nodding, densely clothed with glandular hairs. *Calyx* deeply 5-parted, the segments broadly lanceolate, bluntish, close pressed to the corolla. *Corolla* campanulate, tubular, nearly cylindrical, spread a little at the mouth, jagged about one-third of the way down, the segments linear and blunt at the ends, of a pale blue, approaching to lilac on the outside; the inside elegantly striped with numerous purple lines from the base to the bottom of the segments. *Stamens* 5, very short, inserted in the throat, near the base of the tube: *filaments* very short, smooth, inserted

in the throat, and extending up the back of the anthers: *anthers* bluntly sagittate at the base, joined by their back to the filaments, two-lobed. *Ovarium* smooth, pyramidal. *Style* smooth, purple, about two-thirds the length of the corolla. *Stigma* a simple white head.

We were highly gratified this Spring by receiving a specimen in flower of this elegant and rare little plant, that had bloomed in the well managed and rich collection of Robert Barclay, Esq., of Bury Hill, and from which the present figure was made. Mr. Cameron informs us that he has cultivated the plant seven or eight years, and never succeeded in flowering it before; it was now in flower the beginning of April, and the flowers continue in perfection several days. As it is a native of the Carinthian Alps, and the Carpathian Mountains, it may be considered quite hardy, and will be a pretty plant for decorating rock-work, if some soil be prepared for it, composed of an equal quantity of turfy loam, peat, and fine sand, well mixed together, and placed in a sheltered situation where the sun does not come too strong to scorch it up; it is also a very proper plant for growing in a small pot, in which it will thrive very well, if the pot be well drained with potsherds, broken small, that the wet may pass off regularly; for should it become sodden with too much moisture, it would be very liable to rot at the roots. It may be increased by dividing at the root; but a better way is to raise it from seeds, as, by dividing it frequently, will make it so weak that it will produce no flowers; and seeds will ripen plentifully if a little pains be taken to fertilize the *Stigma* with the pollen when in bloom; the seedling plants also thrive much better than the divided plants.

For the derivation of the generic name, see folio 48. series 2.



1. Calyx. 2. Corolla spread open, to show the lined inside, and the insertion of the 5 Stamens near the bottom of the tube. 3. Ovarium, terminated by the Style and small capitate *Stigma*.



OXALIS floribunda.

Abundant-flowering Wood-Sorrel.

Class & Order. PENT-DECANDRIA PENTAGYNIA.

Natural Order. OXALIDEÆ. DC. *prodr.* 1. p. 689.

OXALIS. *Calyx* 5-sepalus, sepalis liberis aut basi coalitis. *Petala* 5. *Stamina* 10, filamentis basi breviter monadelphis, 5 exterioribus alternis brevioribus. *Styli* 5 apice penicilliformes aut capitati. *Capsula* pentagona oblonga aut cylindræa.—*Herbæ perennes, caulescentes stipitatae aut acaules: foliis variis sed nunquam abruptè pinnatis.* DC. *prodr.* 1. p. 690.

Sect. II. Corniculatæ, caulibus basi non bulbosis herbaceis (rarissimè suffruticosis) foliosis, pedunculis rariùs 1-floris sæpiùs bi-aut multifloris, foliis palmato-trifoliatis, foliolis omnibus sessilibus obcordatis.

O. floribunda, subcaulescens, caule brevi subcarnoso, foliis numerosis verticillato-confertis longe petiolatis villosulis: foliolis obcordatis ferruginoso-villosis, pedunculis multifloris elongatis folio triplo longioribus, calycibus corollisque sericeo-villosis, stylis staminibus duplo longioribus.

Oxalis floribunda. *Lekman. nov. act. acad. cæs. nat. cur. tom.* 14. p. 813-814. *non Bot. reg.*

Root tuberous, solid, jointed. *Stem* short, simple, somewhat succulent, of a brown scaly appearance, occasioned by the remains of the decayed leaves and stipules. *Leaves* numerous, in crowded whorls, all crowded in a dense tuft, each producing three leaflets; *leaflets* sessile, broadly obcordate, with a deep notch at the end, attenuated to the base, fringed at the margins, and thickly clothed on both sides with short brown hairs, and bearing two irregular rows of brown scaly glands on the under side, a little within the margin, becoming flat when old, but when young bent inwards a little on each side. *Petioles* nearly cylindrical, but flat and winged with a thin membrane on each side near the base, thickly clothed with short hairs, like the leaves, as are also the peduncles and pedicles. *Peduncles* numerous, apparently one between each leaf, long and slender, cylindrical, about three times the length of the leaf-stalks. *Umbels* generally 7 or 8-flowered. *Flowers* of a bright rose colour, lined from the base with darker lines. *Involucre* of several small ligulate bractes, unequal in size and length, ending in blunt points. *Pedicles* slender, about an inch and a half in

length. *Calyx* of 5 sepals, connected at the base: *sepals* oblong, or oblongly lanceolate, scarcely acute, densely clothed with a silky wool. *Petals* 5, wedge-shaped, tapering to a slender point at the base, entire, clothed with a dense silky pubescence on the back, smooth and glossy on the upper side. *Stamens* 10, monadelphous, or all connected at the base, 5 opposite to the sepals, and 5 alternating with them; those opposite to the sepals more than double the length of the others, and very hairy, the short ones smooth: *filaments* dilated a little at the base, tapering upwards to a slender point, which is affixed to the back of the anthers: *pollen* golden yellow. *Ovarium* 5-angular, densely woolly. *Styles* 5, purple, clothed with long hairs, about double the length of the stamens. *Stigmas* small depressed green heads, warted or glandular.

According to Lehman, the present species is a native of Brazil, and was procured of him for Robert Barclay, Esq., of Bury Hill, by Mr. Hunnemann: it is a most beautiful species, continuing to produce an abundance of its handsome rose-coloured flowers all the Spring and Summer, when planted in a warm border; or if grown in a pot in the window of a light room, nothing can produce a more elegant appearance. The plant from which our drawing was made, was kindly sent to us from Mr. Barclay's collection, in full flower, in May last, and its flowers still continue to be produced in succession, expanding every fine day, and closing in the evening: it must not be confused with *O. floribunda* of the Botanical Register, that species not being Lehman's plant, but the *O. rosea* of the Botanical Magazine.

The best soil for the present plant, is a mixture of light turfy loam, peat, and sand, and, if grown in a pot, it will require to be well drained with small pieces of potsherds, that the wet may pass off readily; if grown in a warm border, it will require a little protection in Winter, to have a pot or some other covering placed over it in severe frosty weather, or the covering of a mat, the same as for other rather tender plants: the best way of increasing it is from seeds.

The generic name is derived from *οξύς*, sharp or acid, from the acid taste of the leaves of the different species.



1. Calyx. 2. The 5 Petals. 3. The 10 Stamens, showing their different lengths, and their connection at the base. 4. Ovarium, terminated by the 5 Styles, that are tipped with small capitate Stigmas.



Col. b. Hudson. 187. F. v. L. 23. July 1896.

AQUILEGIA glandulosa.

Glandular Columbine.

Linnean Class and Order. POLYANDRIA PENTAGYNIA.

Natural Order. RANUNCULACEÆ. *DC. reg. veg. syst.* 1. p. 127.

Tribus IV. HELLEBOREÆ. Æstivatio calycis et corollæ imbricata. *Petala* nunc 0, nunc irregularia bilabiata nectarifera. *Calyx* petaloideus. *Carpella* capsularia intus dehiscentia polysperma. *DC. prodr.* 1. p. 44.

AQUILEGIA. *Calyx* 5-sepalus deciduus colorato-petaloideus. *Petala* 5 supernè hiantia bilabiata, labio exteriori magno plana, interiore minimo, deorsum producta in calcaria totidem cava apice callosa inter sepala exserta. *Stamina* numerosa in phalanges 5-10 disposita, interiora abortiva antheris nullis filamentis dilatatis membranaceis oblongis. *Ovaria* 5. *Capsulæ* totidem erectæ polyspermæ stylis acuminatæ.—*Herbæ* perennes, erectæ; radices fibrosæ; folia radicalia aut inferiora longè petiolata, petiolo trifido biternatim secta, segmentis trifidis dentatis sæpius obtusis; superiora in lobos lineares partita aut secta; flores terminales, cœrulei, albi, rosei aut purpurei, rarissimè sordidè flavescentes. *DC. reg. veg. syst.* 1. p. 333.

A. glandulosa, calcaribus incurvis petalorum limbo duplò brevioribus, herbæ parte superiore carpellisq. villosoglandulosis. *DC. prodr.* 1. p. 50.

Aquilegia glandulosa. *Fischer. inedit. Link enum.* 2. p. 84. *Spreng. syst. veg.* 2. p. 630. *Swt. hort. brit.* p. 6. *edit.* 2. p. 8. n. 4.

Herbaceous. Root perennial. Stem from 6 inches to a foot in height, erect, generally three-flowered, densely covered with short glandular hairs, as are also the bractes and calyx. *Leaves* at the root on long footstalks, somewhat glaucous, twice ternate: the leaflets trifid or bifid; the lobes again more or less lobed, wedge-shaped, and toothed with large bluntly rounded or emarginate teeth, the underside clothed with a roughish pubescence, and veined with numerous branching veins. *Petioles* long, slightly angular, but pubescent; the branches to the leaflets densely clothed with little bunches of hairs, as are also the veins of the leaflets. *Leaves* at the base of the peduncles, sessile, deeply trifid, the segments linear, and thickly clothed with short glandular hairs. *Peduncles* in our specimen, about four inches long, each bearing two bractes about the middle. *Bractes* nearly opposite, but one a little above the other, lanceolately linear,

tapering to a slender point, keeled at the back, clothed with glandular hairs. *Sepals* 5, of a dark bright blue, broadly ovate, scarcely acute, tapering to the base, lined with numerous darker veins, spreading. *Petals* 5, erect, alternate with the sepals, and affixed by the centre; the limb ovate, rounded at the points, hollow on the inside, of a delicate cream colour, marked below with blue, the base extending down to a nectariferous spur that is about half the length of the limb, the points all curved inwards. *Stamens* numerous, surrounding the ovariums, the filaments unequal in length, produced in sets, and attached to the base of the anthers: inner ones membranaceous, flat, acute, bearing no anthers. *Ovariums* densely clothed with glandular hairs. *Styles* in one of our flowers 5, in the other 7, longer than the stamens, hairy at the base, and smooth upwards. *Stigma* simple, recurved.

Our drawing of this handsome species was taken from fine specimens kindly sent to us from the Nursery of Messrs. Buchanan and Oldroyd, of Camberwell, who possess a large collection of hardy herbaceous plants, and are now forming a general collection of hardy trees and shrubs; and we are much pleased to see the hardy plants becoming so universally fashionable, as no amusement can be more innocent and rational, than the admiring, and examining the various forms and colours of the different plants and flowers.

This species and *A. alpina* are certainly two of the finest of the genus, and few plants are possessed of greater beauty. *A. sibirica* is also very delicate and beautiful, and may be likened to the present species in miniature; of this we now possess a figure, which we intend shortly to publish.

The present plant appears to suffer a good deal from too much moisture in Winter; it should therefore be planted in a border of light dry soil; the best way of increasing it is from seeds, which should be sown soon after they are ripe, the plants will then come up the following Spring; but if kept till Spring before they are sown, many of them will not come up till the Spring after that.

Aquilegia is derived from *aquilus* an eagle, and *Columbine* from *columba* a dove, the flower when divested of part of its sepals and petals, bearing a strong resemblance to a bird in flight.



1. One of the Sepals, showing its slender base. 2. One of the Petals, showing its short Spur and recurved point. 3. A portion of the Stamens, to show their different lengths. 4. The Carpella, terminated by the Styles, divested of the Petals and fertile Stamens, showing the broad barren filaments, and the glandular hairs on the Carpella and Style.



1866

Iris sibirica L. f. *Variegata* (L.) K. & A.

IRIS flavescens.*Pale yellow Flower de luce.**Linnean Class and Order.* TRIANDRIA MONOGYNIA.*Natural Order.* IRIDEÆ. *Brown prodr.* p. 302.

IRIS. *Perianthium* 6-partitum magnum: laciniis 3 alternis rectis: 3 alternis reflexis intus barbatus aut imberbibus basi staminiferis. *Stamina* 3. *Stylus* brevis; *stigmata* 3, petaloidea, oblonga, magna, staminibus incumbentia, sulco longitudinali nectarifero marginato suprâ exarata.

Sect. I. BARBATA. *Corollis barbatis, foliis ensiformibus.*

I. flavescens, foliis lanceolatis acutis subplicatis caule ramoso dimidio brevioribus, spathis inferioribus subfoliaceis; superioribus membranaceis, perianthii laciniis exterioribus deflexis: interioribus obovatis basi intus longe pilosis, tubo ovario sexsulcato longitudine.

Iris flavescens. *Redoute liliac.* v. 7. t. 375. *Ram. et Schult. syst.* v. 1. p. 458. *Swt. hort. brit.* p. 395. *edit. 2.* p. 496.

Roots tuberous, knotted, similar to several other species. *Stem* about two feet high, smooth, but slightly covered with a thin mealiness, nearly twice the length of the leaves, generally from 4 to 6-flowered, leafy towards the base, naked from below the middle upwards. *Leaves* distichous, somewhat plaited, or strongly nerved so as to occasion a plaited appearance, and thinly covered with a white powder, straight or occasionally a little twisted: *lower ones* sword-shaped, from 9 to 15 inches in length, ending in a sharp point: *stem-ones* shorter, somewhat falcate, lanceolate, clasping the stem at their base. *Bractes* membranaceous, the length of the tube: lower one leaflike, with membranaceous point and margins; upper ones thin and membranaceous, surrounding the ovary and tube of the flower, of a brownish white colour. *Flowers* sessile, of a pale yellow: *tube* green, slightly triangular, about the length of or a little longer than the ovary: *limb* spreading: the three outer segments broadly obovate, rounded at the points, becoming gradually slenderer downwards: bearded with bright yellow hairs about half way up, and marked with numerous branching brown veins from the base to about half way up, becoming paler upwards, at first flat and spreading, afterwards reflexed from about the middle: three inner segments erect, the points bent inwards a little, obovate, very much attenuated at the base, where the sides close inwards, and enclose a tuft of long

yellow hairs, margins a little undulate. *Stamens* 3, inserted in the tube, opposite to the outer segments: *filaments* smooth, flat, tapering upwards, white, inserted in the base of the anthers: *anthers* linear, sagittate at the base, white, bursting on the under side: *pollen* white, granular. *Ovarium* sessile, oblong, 6-channelled, smooth, of a bright green colour. *Style* acutely triangular. *Stigmas* 3, petal-like, spreading, pale bright yellow, oblong, slightly attenuated to the base, sharply keeled on the upper side, and concave or hollow underneath, where they cover and hide the stamens, deeply cleft into 2 segments; the segments spreading, ovate, attenuated at the points, entire on the inner side, but deeply and sharply serrated on the outer sides, entire below the segments.

Our drawing of this pretty species was taken in May last, from a plant that flowered in the Apothecaries Company's Garden, at Chelsea. Mr. Anderson had received it under the name of *I. lutescens*, to which it is not in the least related, that being a little dwarf plant, seldom exceeding four inches in height, and the flower rising a little above the short leaves, the plant therefore that is figured in Redoute's *Liliaceæ*, with the leaves much longer than the flowers, we think can scarcely be the same species: at any rate, we have never seen it in so luxuriant a state as there represented; the true *I. lutescens* is cultivated by Mr. Anderson, where we have frequently seen it in flower: the plant figured for *I. lutescens* in the *Botanical Magazine*, t. 2861. is without doubt the *I. sordida* of the Supplement to Willdenow's *Enumeratio*, of which Link supposes the present to be a larger variety; but we have no doubt ourselves but they are distinct species, as is also the *I. virescens* of Redoute's *Liliaceæ*, which we have seen in flower at Mr. Dennis's Nursery, at Chelsea.

It is not precisely known, of what country the present plant is a native, but in Redoute's *Liliaceæ* it is stated to be cultivated in the gardens of Paris; and if we are not much mistaken, we have seen plants of it sent by Mr. Schleicher from Switzerland; it thrives well in the common garden soil, and flowers in May and the beginning of June, and is readily increased by dividing at the root.

For the derivation of the generic name, see folio 11. series 2.



1. One of the outer segments of the Perianthium spread open, to show the lines, and the dense tuft of yellow hairs with which it is bearded. 2. The lower part of one of the inner segments, spread open to show the long hairs, that are inclosed by the sides being folded inwards when growing. 3. The 3 Stamens. 4. The short Style, terminated by its 3 petal-like Stigmas.



Adiantum

Adiantum

Adiantum

DRACOCÉPHALUM altaïense.

Betony-leaved Dragon's-head.

Linnean Class and Order. DIDYNAMIA GYMNOSPERMIA.

Natural Order. LABIATÆ. *Brown prodr.* 490.

Div. IV. Stamina 4 fertilia. Corolla bilabiata. Calyx bilabiatus.

Juss. gen. 115.

DRACOCÉPHALUM. *Calyx* tubulosus, 15-nervis, bilabiatus: labio superiori 3-dentato, dentibus ovatis, mediâ sæpiùs latiore: inferiori bidentato, dentibus linearibus, intùs fauce nudâ. *Corolla* tubo nunc exserto nunc calyce brevior, fauce inflatâ, bilabiata: labio superiori erecto, emarginato, fornicato: inferiori patente trifido, lobo medio emarginato subplano. *Stamina* 4, sub labio superiori ascendentia, approximata. *Antheræ* biloculares, loculis divaricatis. *Stylus* apice subæqualiter bifidus. *Achenia* sicca, lævia. *Bentham Bot. reg.* 1292.

D. altaïense, verticillis remotiusculis, bracteis oblongis mucronato-dentatis, calycis laciniis æqualibus, foliis radicalibus cordato-oblongis obtusis dentatis; caulinis amplexicaulibus subrotundis crenatis. *Spreng. syst.* 2. p. 693.

Dracocephalum altaïense. *Lam. in act. petrop.* v. 15. 1770. p. 556. t. 29. f. 3. *Willden. sp. pl.* 3. p. 154. *Pers. syn.* 2. p. 133. *Hort. Kew. ed.* 2. v. 3. p. 420. *Spreng. syst.* 2. p. 693.

Dracocephalum grandiflorum. *Botan. magaz.* t. 1009. nec aliorum.

A handsome herbaceous perennial plant, growing in dense tufts, producing numerous flowering stems, which are quadrangular, very leafy, and densely clothed with hairs which all bend downwards, from 4 inches to near a foot in height, according to the strength of the plant. *Root leaves* petiolate, oblong, obtuse, cordate at the base, pubescent on each side, but glossy above, and deeply notched, producing numerous broad rounded teeth, which imbricate over each other. *Petioles* deeply channelled on the upper side, and keeled on the lower, very hairy. *Stem leaves* sessile, clasping the stem, nearly round, but attenuated to the base, deeply toothed with very large bluntish teeth, 5-nerved from the base, the nerves branched, very hairy on both sides and fringed, purplish at the base. *Flowers* very large, dark blue, in whorls round the stem, and terminal. *Bractes* surrounding the flowers, cuneate, sharply toothed, strongly 3-nerved, very hairy and fringed. *Calyx* tubular, 5-cleft: tube many angled, villous; laciniæ

equal in length, all lanceolate, except the back one, which is broader, and concave inwards. *Corolla* tubular, 2-lipped; tube very narrow at the base, but very much inflated towards the mouth, thickly clothed all over with short hairs: *upper lip* large, with two broad rounded lobes, a little arched over; *lower lip* 3-lobed; the two side lobes short and straight, rounded: lower one 2-lobed, bearded near the base on each side with tufts of long hairs, and spotted all over with numerous dark spots, which extend into the throat, the lobes broadly wedge-shaped and reflexed. *Stamens* 4, inserted in the tube, a little within the mouth, and decurrent down it, two a little longer than the others: *filaments* pubescent their whole length, slightly forked at the point, the lower point very slender, and attached to the back of the anther. *Style* smooth and slender. *Stigma* 2-cleft, pointed, the lower segment rather longest.

This beautiful plant is a native of the Altay mountains, and is frequently sold at the Nurseries by the name of *D. grandiflorum*, which is a very different plant, and but slightly related to the present, this being a tufted perennial, producing numerous short shoots at the base, and its bractes are very broad, and deeply notched. *D. grandiflorum* is an annual, with lanceolate, acute, entire bractes, and smaller flowers.

Our drawing of the present species was taken from a plant at the Nursery of Messrs Whitley, Brames, and Milne, where we have observed it flourish much better, than in any other collection, chiefly owing, we believe, to the dry light nature of the soil; it is well deserving a place in every collection of hardy herbaceous plants, as its flowers are so strikingly beautiful, and it continues to produce a succession of flowers for some time; its time of flowering is from the end of May to July; we have also frequently seen it produce flowers again in Autumn: it is readily increased by dividing at the root.

The generic name is derived from *δρακον*, a dragon, and *κεφαλη*, a head, from the fancied resemblance of the flower to the head of a Dragon.



1. Calyx. 2. Corolla spread open, showing the insertion of the four Stamens. 3. Filament distinct, to show its pubescence, and slightly cloven point, the lower segment of which is attached to the anther. 4. The four naked Seeds, divested of the Calyx, terminated by a long slender Style, and cleft Stigma.

*E. Bonzich del*

Feb. 17, 1900, 1892-1900

1927

ORNITHOGALUM refractum.

Reflexed Star of Bethlehem.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. ASPHODELEE. *Brown prodr.* p. 274.

ORNITHOGALUM. *Supra folio* 42. series 2.

O. refractum, bulbo prolifero, floribus corymboso-racemosis, pedunculis fructiferis refractis bracteis lanceolatas vix superantibus, foliis linearibus acutis canaliculatis albido-lineatis subtus sulcatis, perianthii laciniis oblongis acutiusculis, capsulis 6-angulatis.

Ornithogalum refractum. *Kitaibel. Willd. enum. suppl.* 17. *Link enum.* 1. p. 328. *Schult. oestr. fl.* 1. p. 559. *Reichenb. ic. pl. rar. t.* 142. *Schult. syst. v.* 7. p. 533.

Bulbs ovate, solid, white, producing numerous young ones under the outer shell. *Leaves* radical, from 7 to 10, erect or spreading a little, becoming weak and flaccid as they begin to decay, linear, acute, channelled on the upper side, and all marked with a longitudinal white line down the centre, the points beginning to turn brown, before the flowers are all expanded; back of a dark glossy green, at first somewhat glaucous, longitudinally furrowed with numerous furrows. *Scape* erect, smooth, producing a many-flowered corymb, which lengthens out to a raceme. *Peduncles* rather short, swollen a little at the base, spreading when in flower, afterwards becoming refracted, at length hanging straight down, close to the scape, the capsule somewhat ascending. *Bractes* narrowly lanceolate, taper-pointed, membranaceous, nearly as long as the peduncles, which they sheath at the base. *Flowers* somewhat fragrant, white on the upper side, the lower side green, edged with white. *Perianthium* deeply 6-cleft; the 3 outer segments rather broadest; all oblong, and but scarcely acute: the inner ones narrowing to the base. *Stamens* 6, inserted in the receptacle. *Filaments* nearly equal in length, much flattened and dilated towards the base, tapering to a slender point, which is attached to the back of the anthers:

pollen pale yellow. *Ovarium* of a glossy green, smooth, six-angular. *Style* smooth, slightly 3-sided, scarcely so long as the *stamens*. *Stigma* of 3 short lobes, fimbriate, the lobes spreading.

Our drawing of this pretty species of *Ornithogalum*, was taken from a plant at the Garden belonging to the Apothecaries Company, at Chelsea, in May last, the only collection in which we have yet seen it. Mr. Anderson had received it from the Botanic Garden at Berlin, in 1825. It is a native of grass-fields in Hungary, and is quite hardy, thriving well in a border of the Flower-garden, and producing its flowers from the end of April till June: it is nearly related to *O. exscapum* of Tenore, with which it has been joined by Sprengel, but it is always easy to distinguish it from that species, by the white stripe up the centre of the leaf, as well as other differences: we are well acquainted with *O. exscapum* of Tenore, having cultivated it several years, the bulbs of which came direct from Tenore himself: there are several other species nearly related to the present, which we have enumerated at folio 42, under *O. montanum*, the whole of which are well deserving a place in the flower-borders; they are all of easy culture, and some of them are readily increased, as they produce numerous offsets from their bulbs, others produce them more scantily, but will ripen seeds readily, if a little pains be taken to fertilize the stigma with the pollen when in a fit state.

For the derivation of the generic name, see folio 42 of series the second.



1. The six *Stamens*, showing how they are dilated downwards. 2. *Ovarium*, terminated by the short *Style*, and slightly 3-lobed *Stigma*.



Salvia splendens

Salvia splendens (L.) Roth

SALVIA fulgens.

Glittering-flowered Sage.

Linnean Class and Order. DIANDRIA MONOGYNIA.

Natural Order. LABIATÆ. *Brown prodr.* 1. p. 490.

Tribus V. NÉPÉTÉE. *Bentham in Botanical Register.*

SALVIA. Calyx subcampanulatus, bilabiatus : labio superiore 2-3-dentato subinde integro ; inferiore bifido. Corolla ringens. Filamenta duo fertilia bifida, lobo altero adscendente antherâ dimidiatâ, altero sterili.—Folia rugosa. Flores verticillato-racemosi.

S. fulgens, foliis cordato-ovatis crenatis subtus incanis, verticillis 6-8-floris, bracteis ovatis longe acuminatis, calycibus trifidis, corollarum galeâ villosâ.

Salvia fulgens. *Cavan. icon.* 1. p. 15. t. 23. *Vahl enum.* 1. p. 237. *Willden. spec. pl.* 1. p. 140. *Pers. syn.* 1. p. 27. *Kth. synops. v.* 2. p. 79. *Ram. et Schult. syst.* 1. p. 231. *Spreng. syst.* 1. p. 61. *Swt. hort. brit. edit.* 2. p. 411.

Salvia cardinalis. *Humb. et Bonpl. nov. gen. et spec. pl. æqu.* 2. p. 301. t. 152.

Stem suffrutescent at the base, when grown strong, attaining the height of three or four feet, or probably more, much branched : branches erect, or somewhat spreading, bluntly four-sided ; when grown in rich soil nearly as thick as the little finger, but with common treatment, scarcely thicker than a goose quill : thickly clothed with white hairs, that are more or less bent at the points, and are crowded in a close mass. Leaves opposite, cordately ovate, regularly crenated with numerous rounded shallow notches at the edges, rugose, hairy on both sides, and clothed with a white hoary woolliness underneath, from an inch and half to three inches in length, feather-nerved, and reticulately veined, the margins frequently tinged with purple : lower ones generally bluntish ; the upper ones acute, and gradually tapering to the point. Petioles about the length of the leaves, or sometimes rather longer, when the plant is of free growth ; or shorter when more stunted, villously hairy. Racemes from a span to a foot in length, according to the strength of the plant, before flowering, each whorl is surrounded by two large ovate, taper-pointed bractes, those are deciduous, and drop off as soon as the flowers expand : whorls generally 6-flowered, or sometimes 8-flowered on the lower part of the raceme, continuing 6-flowered nearly all the way up ; stem of the raceme generally more or less tinged with purple, as are the peduncles and calyx. Peduncles short, generally in threes, nearly equal in length, or the middle one rather longest. Calyx campanulate, two-lipped, strongly ribbed with numerous prominent nerves, densely clothed with short hairs : upper lip entire, ovate, appearing acute when folded up, but in reality obtuse when

spread open : *lower lip* bifid, the segments ovate and acute. *Corolla* tubular, from an inch and half to two inches in length, two lipped, the upper side densely clothed with brilliant scarlet wool; upper lip entire, straight, or slightly bent inwards at the point, concave : lower one bending downwards, three-lobed, the two side lobes soon become bent back : the middle one much broader, dilated at the end, spreading, slightly emarginate. *Stamens* 2, fertile. *Filaments* inserted in the tube : *fertile ones* attached to a pedicle by the middle, with a tooth on each near where they join, connected to each other by red hooked hairs, inserted in the back of the anthers : *sterile ones* very small, white, on each side of the fertile ones. *Style* slender and smooth at the base, widening upwards, and bearded with red hairs on each side, and smooth between. *Stigma* bifid, the segments unequal, the upper one longest and slenderest, reflexed at the point.

For this grand and superb addition to our gardens, we are obliged to Messrs. W. and J. Newman, Nurserymen, at Chichester, who inform us that they have cultivated it this seven years, but did not know its merits till last Autumn, when it flowered so fine in the open borders till the sharp frost came in November, when it was placed in the Greenhouse, and flowered all the Winter; and a plant in fine flower was kindly sent to us in March last, which we planted in a border in our garden in very rich soil, about half rotten dung; it there grew so luxuriantly, that the young shoots were as thick as the little finger, and all terminated by large racemes of flowers; but before they were in full perfection, a very strong wind broke it off near the ground; another plant in less rich soil is now very strong, and flowers abundantly, but it is not near so fine as the one that was broken; it was cultivated in the Botanic Garden at Madrid, many years ago; and a specimen shown by us to Don Mariano Lagasca, was immediately recognised by him as an old acquaintance, and pronounced to be the *S. fulgens* of Cavanilles; in Messrs. Humboldt and Bonpland's large work it is published as a new species, under the name of *S. cardinalis*, which mistake is righted by Kunth in his Synopsis, where it is stated to be a native of Mexico, growing between Toluca and Tianguillo, at an altitude of nine thousand, four hundred and twenty feet above the level of the sea; it certainly is a plant that ought to be in every collection, as it requires so little care, wanting nothing but a slight covering in severe frost; young cuttings, planted under hand-glasses in the open ground, root readily.

The generic name is derived from *salvere*, to save, on account of the healing qualities of *Salvia officinalis*, or common Sage, with which, as Lagasca remarks, are confused several very distinct species, chiefly natives of Spain.



1. Calyx. 2. Tube of the Corolla split open, to show the insertion of the Stamens, and their connection : also the two very small white sterile ones, one on each side of the others. 3. Stamen detached, to show how it is connected by the middle to a pedicle. 4. The four naked Seeds, divested of the Calyx, also the long slender Style, bearded on each side towards the point, terminated by the unequal bifid Stigma.



L. D. Smith 1892

L. D. Smith 1892

DODECÀTHEON Meadia γ elegans.

Elegant American Cowslip.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. PRIMULACEÆ. *Brown prodr.* p. 427.

DODECÀTHEON. *Calyx* semiquinquefidus persistens, laciniis reflexis demum longioribus, persistentibus. *Corolla* quinquepartita, tubo calyce brevior, limbo reflexo, laciniis longissimis lanceolatis oblongisve. *Stamina* 5: *filamenta* brevissima, tubo insidentia: *antheris* sagittatis conniventibus in rostrum. *Stylus* filiformis. *Stigmate* obtuso. *Capsula* oblonga apice dehiscent. *Semina* plurima parva. *Involucrum* polyphyllum minimum. *Lam. illust. t.* 99. *parum mutatum.*

D. Meadia, foliis oblongo-ovalibus repando-dentatis sinuatisve, umbellis multifloris laxis, bracteis ovalibus lanceolatisque.

Dodecatheon Meadia. *Linn. syst. veg.* p. 163. *Spec. plant.* p. 163. *Botan. Magaz. t.* 12. *Willd. spec. pl.* 1. p. 808. *Lam. illust. n.* 1957. *t.* 99. *Enum. hort. berol.* 1. p. 192. *Mich. flor. bor. amer.* 1. p. 123. *Pursh flor. amer. sept.* 1. p. 136. *Pers. syn.* 1. p. 170.

Meadia. *Catesb. car.* 3. p. 1. *t.* 1. *Trew Ehret. t.* 12.

α **lilacinum**, foliis repando-dentatis, floribus paucioribus lilacinis, corollæ laciniis lanceolatis. *Bot. mag. t.* 12.

β **albiflorum**, foliis repando-dentatis, floribus albis. *Sw. hort. brit. ed.* 2. p. 423.

γ **elegans**, foliis subsinuato-dentatis, floribus numerosioribus, corollæ laciniis oblongis acutis basi albis circulo purpureo basi ornatis. *Supra, t.* 60.

δ **giganteum**, scapo elato 3-pedalis, floribus lilacinis numerosissimis. (75-125.) *Wood Mes.*

Root perennial, herbaceous, producing several leaves from the base, stemless. *Leaves* large, ovately oblong, bluntish, from 10 inches to a foot in length, and four inches broad, margins more or less clothed with mealy scales near the nerves, attenuated towards the base into the footstalk. *Petioles* smooth, tinged with pale rose-colour, channelled on the upper side and keeled underneath. *Scapes* tall, erect, stout, slightly angular, smooth and glossy. *Umbels* many-flowered. *Involucrum* of numerous bractes, of various shapes and sizes, ovate or lanceolate, acute, smooth and glossy. *Peduncles* long and slender, cylindrical, erect, the points nodding, smooth and glossy, and arranged in an elegant manner. *Calyx* persistent, campanulate, narrowing to the base, 5-cleft about half the length, smooth: segments ovate, tapering to a slen-

der point, reflexed when the flower is expanded, but becoming erect when the bloom is dropped off. *Corolla* deeply 5-cleft, of a bright rosy pink, with a white circle a little above the base, which is surrounded by a handsome purple ring: *tube* short, cylindrical: *limb* deeply 5-cleft, the segments elliptically oblong, acute, reflexed, narrowing a little towards the base. *Stamens* 5, inserted in the end of the tube, opposite to the segments: *filaments* short, succulent, attached to the base of the anthers: *anthers* linear, acute, two-celled, bursting inwards, pressed close to each other, so as to appear like a sharp point. *Ovary* green, smooth, nearly cylindrical, many-seeded. *Style* smooth, slender, longer than the stamens. *Stigma* a small, simple head.

For the opportunity of giving a figure of this elegant and superb variety, we are obliged to Messrs. J. Wood and Son, Nurserymen, of Huntingdon, who inform us that they raised it from the seeds of the common *D. Mædia*, and at the same time another variety, which they have named *gigantea*; had they not assured us that it was raised from seeds of the common sort, we should have felt inclined to have published it as a distinct species, from the broad ovate, instead of linear segments to the flower, and the sinuate edges of the leaves; the variety *gigantea* is described to us as producing a flower-stem three feet high, furnished with innumerable lilac-coloured flowers; they also inform us that they have now a stock of each for sale, of stout blooming plants, the present variety at ten shillings and sixpence each, and the gigantic variety at seven shillings and sixpence; so that by applying to Messrs. Wood, a supply of them may be obtained: it certainly is one of the finest things we have seen for some time, and ought to be in every collection of hardy herbaceous plants, thriving well in a rich light soil, and increasing by offsets from the root.

According to Linnæus the generic name is derived from *θεός*, deity, and *δωδεκα*, twelve, twelve deities, the flowers being supposed to bear a resemblance to a deity.



1. Calyx. 2. Tube of the Corolla, divested of the segments, to show the insertion of the five Stamens. 3. Ovary, terminated by the slender Style, and minute capitate Stigma.



E. D. Smith, del. W. H. P. A. 1890

E. D. Smith, del.

W. H. P. A.

POTENTILLA Hopwoodiana.

Hopwood's hybrid Cinquefoil.

Linnean Class and Order. ICOSANDRIA POLYGYNIA.

Natural Order. ROSACEÆ. DC. *prodr.* 2. p. 525.

Subordo II. POTENTILLÆ. *Calyx* 5-fidus (rariùs 4-fidus aut pluridivisus), per æstivationem valvatus, sæpè extùs bracteolas lobulosve exteriores lobis alternos gerens. *Petala* tot quot calycis lobi veri et iis alterna. *Stamina* plura, rariùs 5 et tunc lobis calycis opposita, apice tubi calycini expansi inserta. *Carpella* numerosa, rariùs pauca congesta, toro inserta, inter se et à calyce libera, et latere prope apicem stylifera. *Styli* introrsum sulco-notati in stigma obliquum expansi. *Akenia* uniovulata omninò libera, exsucca aut baccata. *Semen* solitarium erectum aut inversum, exalbuminosum. *Embryo* rectus, cotyledonibus planiusculis.—*Herbæ aut frutices; foliis sæpiùs compositis; stipulis 2 lateraliter petiolo adnatis.* DC. loc. cit. p. 549.

POTENTILLA. *Calyx* tubus concavus, limbus 4-5-fidus extus 4-5-bracteolatus. *Petala* 4-5. *Stamina* numerosa. *Carpella* plura stylo laterali donata, in receptaculo procumbente persistente exsucco capitato. *Semen* appressum.—*Herbæ aut suffrutices foliis compositis; stipulis petiolo adnatis; floribus albis luteis rariter rubris.* DC. l. c. p. 571.

P. Hopwoodiana, foliis sexenatis quinatisque; superioribus ternatis: foliolis oblongo-cuneiformibus grosse dentatis utrinque hirsutis, laciniis calycinis ovatis acuminatis, petalis obcordatis valde imbricatis, caule ascendente villosopilosa.

Perennial, herbaceous: branching from the root; *branches* from 9 to 18 inches in length, more or less tinged with purple, densely clothed with long white villous hairs: branching at the ends. *Leaves* digitate, producing from 5 to 6 leaflets, those from the root generally producing 6, and the lower part of the stem 5, on the upper part only 3: *leaflets* oblongly wedge-shaped, bluntish, or scarcely acute, deeply toothed with numerous large broad teeth, very hairy on both sides, feather-nerved underneath, the nerves and veins villosely hairy. *Petioles* on the root leaves long, purple on the upper side and paler underneath, slightly furrowed on the upper side, thickly clothed with long villous hairs. *Stipules* large, ovate, acute, attached to the base of the petioles, villous. *Flowers* numerous, very elegant, produced in a spreading panicle: *Flowering-branches* and *peduncles* purple, villosely hairy: the leaves amongst the flowers simple, with the two large bractes attached to their base, which gives an appearance of being ternate. *Peduncle* slender, cylindrical. *Bractes* 5, somewhat similar to the segments of the calyx, spreading

or a little reflexed, linearly lanceolate, acute, very hairy, and fringed, joined to the calyx a little above the base. *Calyx* very hairy, deeply 5-cleft, the segments spreading, ovate, broad at the base, and tapering to a slender point. *Petals* 5, very broad, obcordate, very much imbricate over each other at the edges, narrowing abruptly at the base, beautifully variegated, each marked with a spot of deep rose-colour at the base, from thence to the centre of a pale straw colour, elegantly edged with bright rose. *Stamens* about 20, varying with one or two more or less, arranged round in two circles. *Carpella* numerous, rounded kidney form, producing the *Style* from the side. *Stigma* small, simple, flattened at the end.

This very handsome plant is of hybrid origin, and was raised last year at the Nursery of Mr. E. Hopwood, of Twickenham, from the seed of *P. formosum*, that had been fertilized by the pollen of *P. réctum*; the habit of the plant is chiefly that of the latter parent, but the leaves are intermediate, the lower ones generally producing six leaflets, which in *P. réctum* are most frequently seven; the colour of the flowers are also intermediate, the base of the petals being dark red, from thence to the centre straw-coloured, and the other part bright rose colour; this is the most singular thing we have ever seen, as the colours are in general of an intermediate shade between the two parents, not one part of the petal of one, and the other part of the other, as in the present subject: it certainly will be a great acquisition to our hardy border plants, and will doubtless, when attainable, be in all collections of hardy plants, as it grows freely in the common garden soil, and may be readily increased, by dividing at the root; and we suspect, from the perfect state of the stamens and stigmas, that it will also produce perfect seeds. Mr. H. informs us that he has no stock of it for sale at present, but expects to be able to sell it out in March next, at a guinea a plant.

According to Linnæus, the generic name is derived from the Latin, *potentia virium*, from the powerful medicinal effects attributed to the common Cinquefoil, *P. réptans*, as a vulgar medicine, and it is still in great repute amongst the labouring people in some parts of the country.

1. Calyx, with the five bractes joined to its base. 2. Stamens, showing their different lengths, and their insertion on the point of the tube of the calyx. 3. The numerous Carpella in a dense tuft, seated on the receptacle, and terminated by their purple Styles. 4. Carpella detached, showing where the Style is fixed.



• 2. nicht da

Sub by R. J. [unclear] [unclear] Sep 1920

Mezzadite

VIOLA canadensis.

Canadian Violet.

Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. VIOLARIEÆ. DC. prodr. 1. p. 287.

Tribus I. VIOLEÆ. *Petala* inter se inæqualia; sepala 3 exteriora, sæpiùs latiora, et 2 interiora. *Pericarpia* dehiscentiâ loculicidâ, nempe suturæ valvarum cum placentâ alternantes et ideò valvæ medio placentiferæ dictæ. *Stamina* petalis alterna; filamenta dilatata, ultrâ antheras producta, libera (approximata aut coarctata) vel rarò coalita; loculi antherarum tardius bivalves. *DC. l. c. p. 288.*

VIOLA. *Calyx* sepala inæqualia, omnia plus minùs deorsùm in appendices auriculæformes (è dilatationibus nervosum prodeuntes) producta, post anthesin erecta. *Petala* inæqualia, æstivatione convolutivâ, ungue trinnervi; inferius deorsùm in calcar cavum plus minùs productum. *Stamina* approximata aut coarctata (nec coalita) ad apicem dentium tori pentagoni 5-dentati inserta. *Filamenta* basi dilatata oblonga vel triangularia, antheras demissiùs gerentia; lobi antherarum basi divergentes, stamina 2 anteriora dorso appendices varias nectariferas in calcar intrantes gerentia. *Ovarium* nunc superum, nunc basi toro concavo cinctum et ideò semi-inferum. *Valvulæ capsulæ* elasticæ post maturationem contractæ semina ejicientes; *semina* horizontalia manifestè carunculata, plus minùs ovoidea et nitida. *Embryo* oblongus, radícula teretiùscula, cotyledones sæpiùs oblongo-orbiculatæ planiusculæ radiculâ vix longiores.—*Herbæ plerùmque perennes, rarissimè annuæ, nunc caule brevissimo vel subterraneo, unde acaules dictæ, nunc caulescentes vel suffrutices parvi; folia alterna marcescentia; pedunculi solitarii axillares uniflori, 2-bracteolati non articulati, apicè reflexi; flores cernui; folia seminalia oblonga ovatave, petiolata; primordialia opposita, sed rarò cœtanea.* *DC. loc. cit. p. 291.*

Sect. III. CHAMÆLANIUM. *Stigma* sphæroideo-capitatum, utrinquè fasciculis pilorum onustum, foraminulo minuto sublaterali. *Stylus* compresso-clavatus. *Stamina* oblonga approximata. *Torus* planiusculus. *Capsula* sæpè trigona. *Folia seminalia* sæpiùs subrotunda. *Petala* 2 ungue barbata.

V. canadensis, foliis late cordatis serratis acuminatis: nervis pubescentibus, stipulis lanceolatis, sepalis subulatis lanceolatis, calcare brevissimo subsaccato, petala duo laterali barbato, capsulâ oblongo-trigonâ obtusissimâ, seminibus subrotundo-ovatis castaneis.

Viola canadensis. *Lin. spec.* 1326. *Willden. sp.* 1. p. 1166. *Hort. kew.* 3. p. 280. *ed. 2. v. 2. p. 46.* *Pursh. fl. amer. sept.* 1. p. 174. *Pio Viol.* 1. p. 27. n. 29. *Nuttall gen.* 1. p. 150. *DC. prodr.* 1. p. 301. *Ræm. et Schult. syst.* 5. p. 375. *Spreng. syst.* 1. p. 801.

Perennial. Herbaceous. *Stems* several from the same root, from a span to 9 inches in height, simple, or branched near the base, nearly cylindrical or very slightly angular, slightly pubescent, the upper part more densely so. *Leaves* broadly cordate, acuminate, or tapering to a long slender

point, serrate, the serratures curved inwards and uncinatè, furrowed on the upper side, and many nerved underneath, generally 5 strong nerves proceeding from the base, which branch in all directions, and are clothed with a short pubescence. *Petioles* variable in length, slightly winged, pubescent. *Stipules* lanceolate, taper-pointed, quite entire, membranaceous, about half an inch in length. *Flowers* numerous, axillary, solitary, sweet-scented, white inside, elegantly striped with blue, outside of a light purple or lilac, dying off a dark purple, as are the buds before expansion. *Peduncles* slightly angular, pubescent, with two bractes on each, near the middle. *Bractes* opposite or alternate, lanceolate, taper-pointed, pressed close to the peduncle. *Calyx* of 5 sepals, which are subulately lanceolate, taper-pointed, smooth or very slightly pubescent. *Petals* 5, 2 upper ones oblong, obtuse, smooth and not streaked: the 2 side ones of nearly the same size, densely bearded above the unguis with tufts of pellucid cartilaginous clubbed hairs, and striped with blue from the base: lower one terminated with a short blunt spur or pouch at the base, yellow above the unguis and elegantly striped with blue or purple. *Stamens* 5, the anthers joined by their backs to the filaments, which are terminated beyond them, in a dry spathulate membranaceous appendage. *Ovarium* smooth, very blunt, ribbed. *Style* smooth, slender, and twisted at the base, thickening upwards, flattened on both sides. *Stigma* a flattened head, with a bunch of hairs on each side, terminated with a very small point a little on one side.

Our drawing of this handsome species of Violet, was taken from fine specimens sent us from the collection of Robert Barclay, Esq. of Bury Hill, from whose collection we have also received several other curious North American Violets, by means of which we have been enabled to clear up some mistakes, on a comparison of the specimens with those in the Linnean Herbarium; by comparing them, we find that the *V. primulaefolia* of Nuttall, with a smooth leaf and white flower, is the true Linnean plant; in Decandolle's Prodrômus it is made variety γ ? *Nuttallii*, by Gingins, who, by the bye, has made sad confusion amongst them altogether. *V. primulaefolia* of Pursh, with pubescent leaves and a pretty blue flower, is a very distinct plant, the *V. ovata* of Nuttall; both Pursh and Nuttall's *V. lanceolata* are wrong, but Elliott's is the same as Linnæus's, with bearded petals, and the same as already figured in the first series of this work, where I mentioned my suspicion of there being two species confused; the one with smooth petals and long leaves attenuated at both ends must therefore have a new name, and I propose to name it *V. attenuata*. The present species thrives well in any situation, but it makes the best appearance when grown in a pot or in peat soil, as it sometimes loses the blue from the back of the petals when grown in the open borders; it continues in bloom nearly all the Summer.

The generic name is a Latin word, most probably originating from so many of the flowers of the genus being of a blue or violet colour; the Greek name is $\omega\upsilon$.



1. Calyx. 2. The two upper Petals. 3. The two side ones, showing the glandular beard near the base. 4. Lower one, showing the short spur or pouch at its base. 5. The 5 Stamens, with their brown scaly appendages at the points. 6. Ovarium, terminated by the bent Style, and fimbriate Stigma.



Fig. 2. Flower of Mimulus.

Fig. 3. by Magnifying Glass. Fig. 4. by Magnifying Glass. Fig. 5. by Magnifying Glass. Fig. 6. by Magnifying Glass.

W. H. H. H. H.

GENISTA Scórpíus.

Scorpion Genista.

Class and Order. MONADELPHIA DECANDRIA.

Natural Order. LEGUMINOSÆ. *DC. prodr. v. 2. p. 93.*

Tribus II. *LOTEÆ. Embryo* homotropus. *Corolla* papilionacea. *Stamina* aut monadelpha aut more ordinis diadelpha (9 et 1.) *Legumen* continuum uniloculare, aut rariùs suturà alterà introflexà biloculare. *Cotyledones* planiusculæ per germinationem in folia stomatibus donata conversæ.

Subtribus I. GENISTEÆ. *Legumen* uniloculare. *Stamina* sæpissimè monadelpha. *Folia* simplicia aut palmatim trifoliolata rariùs pinnata. *Caules* sæpissimè fruticosi. *DC. prodr. 1. p. 115.*

GENISTA. *Calyx* bilabiatus, labio superiore bipartito, inferiore 3-dentato, aut 5-lobus, lobis 3 inferiora ad apicem ferè coalitis. *Vexillum* oblongo-ovale. *Carina* oblonga recta genitalia non omninò continens. *Stamina* monadelpha. *Legumen* plano-compressum aut rariùs subturgidum, polyspermum, rariùs oligospermum, eglandulosum.—*Frutices floribus flavis.* *DC. prodr. v. 2. p. 145.*

G. Scórpíus, ramis patentibus striatis, foliis paucissimis oblongis subsericeis, spinis ramosis patentibus striatis glabris, floribus fasciculatis subracemosis breviter pedicellatis glabris, carinà vexillo paulo breviorè, legumine 4-8-spermo.

Genista Scórpíus. *DC. fl. fr. 4. p. 498. Prodr. syst. nat. veg. 2. p. 148. Watson dend. brit. t. 78. Link enum. v. 2. p. 225. Swt. hort. brit. p. 112. edit. 2. p. 130.*

Spartium Scórpíus. *Linn. spec. 995. Willd. spec. pl. 3. p. 929. Hort. Kew. edit. 2. v. 4. p. 256. Pers. syn. 2. p. 286.*

Genista spiniflora. *Lam. dict. 2. p. 621.—Clus. hist. 1. p. 106. f. 1.*

A handsome spreading, branched Shrub: *branches* cylindrical, striated, clothed with a thin pubescence when young, but smooth, as they become older; *spines* alternate, leafy, frequently branched, producing fascicles of flowers in a sort of raceme, striated, pubescent when young, afterwards becoming smooth and losing their leaves. *Leaves* scattered, simple, not numerous, oblong, acute, or sometimes bluntish, very small, clothed with a close-pressed silky pubescence, hollow on the upper side, and somewhat keeled underneath. *Petioles* very short, silky. *Stipules* minute, subulate. *Flowers* numerous, of a bright golden yellow, clustered in a sort of

short leafy raceme. *Pedicles* short and slender, clothed with close-pressed hairs. *Bractes* 2, very small, linear, acute, fringed. *Calyx* 2 lipped, smooth, pale yellowish green: the upper lip of two acute longish teeth, fringed at the margins: lower lip with three shorter teeth, also fringed. *Vexillum* oblongly cuneate, slightly retuse at the end, keeled at the back, and channelled on the inside, abruptly attenuated at the base, with a short slender unguis, a little longer than the wings and keel. *Wings* oblongly linear, obtuse, with a very slender unguis. *Keel* about the length of the wings, scarcely so long as the vexillum, with an ear on one side of each segment at the base, and a very slender unguis on the other. *Stamens* 10, all connected in a tube at the base, the upper part divided into spreading filaments, unequal in length. *Ovarium* smooth, 4 to 8-seeded. *Style* smooth, ascending, the point curved upwards. *Stigma* a minute head.

The present genus, although all the species belonging to it were monadelphous, was nevertheless placed by Linnæus in his class Diadelphia, with many other papilionaceous genera that were also monadelphous; this therefore tends to mislead the young Linnean Botanist; for, of course, if he finds a plant monadelphous, he would immediately turn to Monadelphia to look for it; we have, therefore, arranged all the monadelphous ones in their proper places, in the present new edition of our *Hortus Britannicus*.

The present genus consists of small, abundant flowering shrubs, and are a great ornament to the borders of a shrubbery; and none, however small, ought to be without some of the species; the present is a very pretty one, and a great bloomer; but being armed with strong spines might be considered a disadvantage by some persons; but we think it may be turned to an advantage, as it is a guard to its flowers when in bloom. Our drawing was made from fine specimens sent us from the choice collection of Robert Barclay, Esq. of Bury Hill, in April last.

The generic name is derived from the Celtic, *Gen*, a small bush, which is also *Génet*, French.



1. Calyx, on the footstalk, with the two little bractes a little below the base. 2. Vexillum. 3. The 2 wings. 4. Keel. 5. The 10 Stamens, connected in a tube, distinct from about half way up. 6. Ovarium, terminated by the slender Style, and minute Stigma.



Pub. by J. Redgrave, 1862, No. 10, p. 10.

Edinburgh. 1862.

SILÈNE compàcta.

Compact Catchfly.

Linnean Class and Order. DECANDRIA TRIGYNIA.

Natural Order. CARYOPHYLLÆ. *DC. prodr.* 1. p. 351.

Tribus I. *SILENEÆ*. Sepala coalita in tubum cylindraceum apice 4-5 dentatum.

SILENE. Calyx tubulosus 5-dentatus nudus. Petala 5, unguiculata, fauce sæpissimè coronata, limbo bifido. Stamina 10. Styli 3. Capsulæ basi triloculares apice in 6 dentes dehiscentes. *DC. prodr.* v. 1. p. 337.

Sect. VIII. *ATOCION*. Caulescentes. Flores corymbosi. Calyx clavatus, 10-striatus.

S. compacta, petalis integris ovatis acutis, calycibus clavatis glaberrimis fasciculatis, pedicellis omnibus brevissimis, pedunculo summo laterali terminali brevior, foliis glaberrimis glaucescentibus basi subconnatis cordato-ovatis acutiusculis, radice bienni.

Silene compacta. *Marsch. Bieb. flor. taur.-cauc. suppl.* p. 306. *Fischer in Horn. hort. hafn.* 1. p. 417. *Spreng. syst.* 2. p. 410. *Swt. hort. brit.* p. 44. *edit.* 2. p. 53. non *Otth* in *DC. prodr.* p. 384.

Silene Armeria. *Bieb. flor. taur.-cauc. v.1. n.* 837.

Biennial. Stem herbaceous, erect or a little flexuose, somewhat branched, smooth and glaucous, knotted at the joints, from one to two feet high. Leaves smooth and glaucous, succulent, about two inches long or rather more, and an inch and half broad, cordately ovate, slightly connected at the base, scarcely acute, but terminated in a short mucrone, quite entire and flat, or a little concave on the upper side, veined with several strong veins a little above the base. Flowers numerous, of a beautiful rosy lilac, in a compact corymb, forming a sort of head. Bractes numerous, lanceolate, tapering to the point and dilated at the base, longer than the short flower-stalks. Peduncles aggregate, smooth. Pedicles short, smooth. Calyx clavate, smooth, slender at the base, and inflated upwards, of a pale blush colour, 10-angular, 5-toothed, the teeth short, ovate, and acute: from the base of the calyx to where it begins to be inflated is a continuation of the pedicle, on which is seated the ovary, surrounded by the petals and stamens. Petals 5, bearing a handsome 10-rayed crown, inserted on the inclosed pedicle at the base of the ovary; unguis very slender at the base, becoming winged upwards with a membranaceous wing on

each side: the limb flat, ovate, acute, of a rosy lilac: rays of the crown linear. *Stamens* 10, five inserted in the base of the petals, and five alternate with them inserted in the receptacle. *Filaments* smooth, exserted, attached to the back of the anthers. *Ovarium* smooth, cylindrical or nearly so, about half the length of the pedicle on which it is seated. *Styles* 3, smooth. *Stigmas* simple.

In the year 1816 we recollect seeing two or three rows of this fine species in flower at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham, but it did not ripen any seeds, and we have never observed it since, until the present Summer, when we were again gratified with the sight of it in full bloom, in the rock-work, and in the borders, of the Apothecaries' Company's Garden at Chelsea, where it had been raised from seeds the year before by Mr. W. Anderson, and from his plants our drawing was made; we afterwards received fine flowering specimens of it from Mr. Barclay's collection, at Bury Hill, where it was raised from seeds received from Mr. Hunnemann: it is certainly a plant that may rank amongst the finest of the hardy border plants; but being biennial, and apparently not free to produce seeds, it is very likely to become lost; but if a little pains were taken with it when in bloom, to apply the pollen to the stigmas, there would not be the least fear but plenty of seed might be obtained, as it would be a great pity if so fine a plant should be again lost for want of taking a little pains to make it produce seed; it is quite hardy; the seed may either be sown in pots, or in a little bed in the open ground, in March, and from thence be transplanted where they are to remain to flower. It is a native of Mount Caucasus and Tauria, and is certainly the *S. compácta* of Marschal Bieberstein and other authors, but as certainly not that of Otth in Decandolle's Prodrômus, which is described with the upper leaves lanceolate, and the lower ones linear; the petals are also said to be obovate; that certainly has nothing to do with the present plant.

For the derivation of the generic name, see folio 40, of the present series.



1. Calyx, showing the inflated upper part of the tube. 2. The 5 Petals, with the 5 Stamens inserted in the base of the unguis. 3. The other 5 Stamens inserted on the pedicle, on which the ovarium is placed, and which is inclosed in the base of the calyx. Ovarium seated on the pedicle, divested of the calyx, terminated by three slender Styles.





P. poliotheca

Red by J. Ridgway 189 Piccadilly Oct. 1893.

W. & A. G. & Co.

PRÍMULA farinosa. *a. β. γ.*

Mealy Bird's-eye Primrose.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. PRIMULACEÆ. *Brown prodr.* p. 427.

PRIMULA. Supra folio 5, series 2.

P. farinosa, foliis cuneato-lanceolatis rugosis crenato-dentatis subtus dense pulverulentis, umbellâ multiflorâ, pedunculis patentibus, tubo ore glanduloso, limbo plano longitudine fere tubi. *Ram. et Schult. syst.* v. 4. p. 141.

Primula farinosa. *Lehm. monog. primul.* p. 52. *Linn. spec.* 1. p. 205. *Willd. spec.* 1. p. 802. *Flor. dan.* t. 125. *Smith flor. brit.* 1. p. 224. *Engl. bot.* t. 6. *Curtis flor. lond.* t. 14. *Sturm. flor. germ. fasc.* 14. *Trattin. tabular.* t. 416.

α. violacea, floribus minoribus; limbo roseo-purpureo aut violaceo. *Supra*, fig. a.

β. lilacina, floribus majoribus; limbo lilacino patentissimo, segmentis profunde emarginatis. *Supra*, fig. b.

γ. nivea, foliis brevioribus latioribus, floribus mediocris; limbo albo. *Supra*, fig. c.

Perennial, tufted. *Leaves* numerous, erect, between wedge-shaped, and lanceolate, sometimes obovate or spatulate, rounded at the points, or sometimes slightly retuse, very much attenuated towards the base, the margins revolute, very slightly notched or toothed, when young entirely covered with a farinaceous powder, which washes off the upper surface with the rain when they become older, they are then of a pale green, and smooth: underneath always clothed with a thick coat of the mealy powder, feather-nerved, the nerves branching. *Scapes* tall, erect, many times longer than the leaves, more or less clothed with the mealy powder. *Involucre* of numerous bractes, one at the base of each pedicle: *bractes* about the length of, or rather longer than the pedicle, linear, tapering to a sharp point, mealy. *Pedicles* short, cylindrical, spreading. *Calyx* tubular, deeply 5-toothed, scarcely narrower at the base, 5-angular: teeth blunt, concave inwards, close-pressed to the tube of the corolla, clothed with a mealy powder. *Corolla* tubular, with a spreading limb: *tube* about the length of, or a little longer than the calyx, straw-colour, bright yellow in the mouth:

limb spreading, deeply 5-cleft, the segments distinct, obcordate, deeply emarginate, varying from a ~~rose~~ purple or violet, to lilac, and white, as in our three varieties. *Stamens* 5, inserted in the tube: *filaments* very short: *pollen* golden yellow. *Ovarium* smooth and glossy, transparent, the ovula showing through it. *Style* smooth and glossy. *Stigma* capitate.

For these three very distinct varieties of *P. farinosa*, we are indebted to Edward Leeds, Esq. of Manchester, who sent them to us last Spring in full bloom, and from them our drawing was made; the following is his observations on them, and his account of the different varieties. "The white-flowered variety is a very local plant, and rare in its native habitats. I collected it in very damp situations and loamy soil, the substratum of which was lime-stone. The high-coloured variety is mostly found in bog or peat earth, and similar substratum, and is always smaller than the others: the specimens sent are not near so strong as I have grown them, by planting them in bog and loam, and placing the pots in which they were grown in pans of water in Summer, but may be considered as fair specimens as found native."

The above varieties were collected in the county of Durham; and from the above account may be collected the best method of cultivating them; they are quite hardy, requiring no other protection, than the pots being plunged in Winter in decayed leaves, rotten tan, or rough ashes, so that they may not be so likely to be frozen through; as soon as the seed is ripe, which in general is produced in great abundance, they should be sown in pots, they will then come up the following Spring, but if not sown till the Spring, they will not come up till Autumn, and many of them not till the Spring following; this is the best method of increasing them, but they may also be increased by dividing at the root.

For the derivation of the generic name, see folio 5, of the second series.



1. Calyx, showing one of the bractes at the base of the pedicle. 2. Tube of the Corolla spread open, to show the insertion of the five Stamens. 3. Ovarium, terminated by the Style and capitate Stigma.



W. Marshall & Co.

Printed by T. D. Gray, 109, North 4th, St. Louis, Mo.

J. D. Smith del.

SYMPHIANDRA pendula.

Pendulous Symphiandra.

Class and Order. MONADELPHIA PENTANDRIA.

Natural Order. CAMPANULACEÆ. Alph. DC. *Monographie des Campanulees.*

SYMPHIANDRA. Calyx 5-fidus. Corolla apice 5-loba, sæpius velutina et ochroleuca. Stamina 5; filamentis inter se liberis, membranaceis, ciliatis: antheris in tubum longum apice 5-dentatum connatis. Stylus cylindricus, pilosus. Stigmata 3, filiformia. Capsula 3-locularis, 3-valvis ad basin dehiscens. Semina ovata, plus minusve complanata nitida. — Plantæ perennes, herbaceæ vel sublignosæ; foliis alternis, petiolatis, cordatis; inferioribus longius petiolatis et majoribus, floribus magnitudine floris Campanularum. Alph. DC. *monographie des Campanulees.*

S. pendula, caullibus ramosis pendulis sublignosis pilosis, foliis ovato-acutis crenato-dentatis velutinis, floribus paniculatis, lobis calycinis lanceolatis; sinibus reflexis ovato-acutis, corollâ infundibuliformi velutinâ. Alph. DC. *mon. camp.* p. 366-367.

Symphiandra pendula. Swt. *hort. brit. edit. 2. addenda.* p. 593.

Campanula pendula. Marsch. *Bieb. flor. taur.-cauc.* 1. p. 154. Rœm. et Schult. *syn. v. 8.* p. 144. Swt. *hort. brit. edit. 2.* p. 327. n. 102.

Perennial, herbaceous, producing a large tuft of leaves, and numerous branches from the base. *Stems* pendulous or nearly prostrate, much branched: *branches* about six inches in length in our plant, thinly clothed with spreading hairs, slightly angular, the angles being formed by the decurrent base of the petioles. *Leaves* cordately ovate, acute, toothed with distant, large, blunt teeth, tipped with a small gland-like mucrone, strongly and numerously nerved underneath, reticulately veined, and somewhat rugose, upper side smooth and glossy, of a pale green, underneath hairy, particularly on the nerves and margins: *stem ones* smaller, less cordate, the upper ones not at all cordate, but attenuated down the petiole, so as to be sessile, or nearly so. *Petioles* on the lower leaves long and slender, dilated at the base, where it is of a purplish red, flattened a little on the upper side, and rounded on the lower, hairy: *stem ones* shorter, and becoming shorter upwards, thickly clothed with short

stiff hairs. *Peduncles* short, very hairy. *Flower* of a long bell-form, inflated about the middle, and contracted a little at the mouth, of a pale straw colour, almost white. *Calyx* 10-cleft, thickly clothed with rigid hairs, every alternate segment largest and erect, broadly lanceolate, acute, much undulate or waved at the margins; the alternate ones not half the length, also much undulate, and reflexed. *Corolla* campanulate, narrow at the base, and inflated upwards, a little contracted at the mouth, deeply 5-cleft, thickly clothed with short hairs on the outside, and a few very long ones within; the segments broadly ovate, acute, erect or slightly reflexed. *Stamens* 5: *filaments* distinct, dilated into a broad wing at the base, that is thickly clothed with bristly hairs, the upper part cylindrical and smooth, and attached to the anthers a little above their base: *anthers* 5, linear, connected into a tube their whole length! and not very readily divided. *Style* thickly clothed with long hairs its whole length. *Stigma* trifid, the points at length revolute.

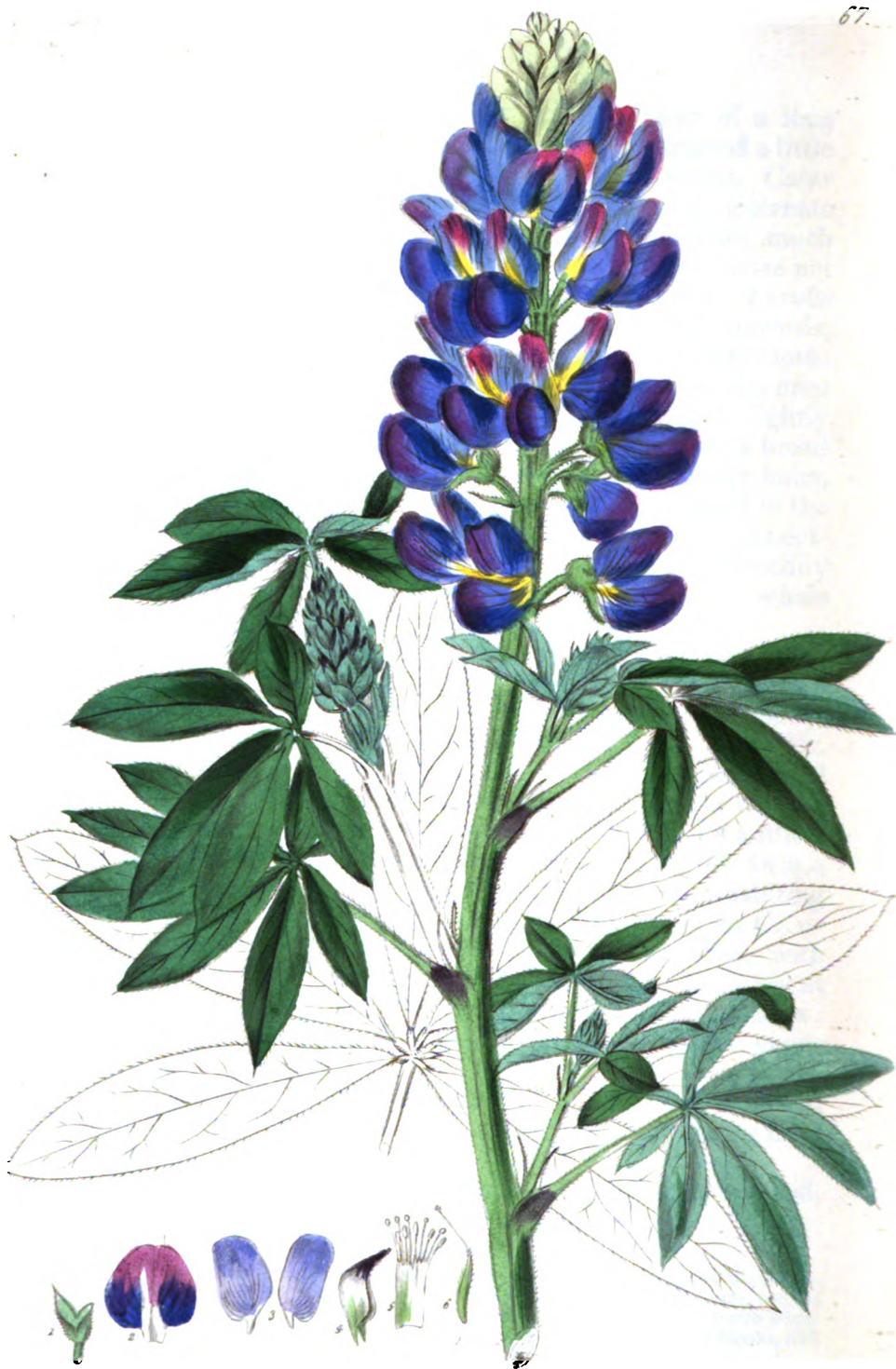
Our drawing of this singular and curious plant was taken last Summer from one growing in the open borders in the garden at Chelsea, belonging to the Apothecaries' Company. Mr. Anderson first raised it from seed received from Dr. Fischer in 1824: it is a native of Mount Caucasus, and therefore quite hardy, and easily cultivated; when we first examined the species, we were surprised to find its anthers united into a tube, and had no doubt but it would form a new genus; we soon after had the opportunity of consulting M. Alphonso Decandolle's excellent Monograph on CAM-PANULACEÆ, where we found the present species, with *Campánula crética*, and *C. armèna*, erected into the present genus, and *C. ossética*, attached to it as a doubtful species; the union of the anthers closely connects the present genus with LOBELIACEÆ.

The present species succeeds well in the common garden soil, and may be increased by dividing at the root, or from seed.

The generic name is derived from *συνφύσα*, connected, and *ανθρ*, anther, from the anthers being connected.



1. Calyx divested of the flower, to show the five erect segments, and the five reflexed ones. 2. The five Stamens, showing the five anthers united into a tube, and the five filaments distinct, and dilated into a broad wing at the base, clothed with bristly hairs. 3. The same split open, back view. 4. The hairy Style, and trifid Stigma, with revolute points.



Lupinus albus

Pub. by J. R. R. 189. *Lupinus albus*. Dec. 230.

Woolley

LUPINUS pulchellus.

Pretty Lupine.

Class and Order. MONADELPHIA DECANDRIA.

Natural Order. LEGUMINOSÆ. DC. *prodr.* 2. p. 93.

Subordo I. **PAPILIONACEÆ.** *Embryo* homotropus pleurorhizeus nempè radiculâ super loborum commissuram pronâ. *Sepala* per æstivationem imbricata aut subvalvata. *Petala* in corollam papilionaceam disposita, semper idè irregularia, staminaque imò calyci inserta seu perigyna.—*Folia simplicia aut simpliciter composita, nunquam bi nec tripartita.* DC. *prodr.* 2. p. 94.

Tribus V. PHASEOLÆ. *Supra folio* 12, *series* 2.

LUPINUS. *Supra folio* 12, *series* 2.

L. pulchellus, fruticosus erectus ramosus: ramis erectis sericeo-pubescentibus, foliolis 7-5 oblongo-lanceolatis acutis mucronatis basi attenuatis subtus pubescentibus adpresso-pilosis, stipulis setaceis, racemis medicribus pedunculatis, floribus verticillatis, bracteis caducis setaceis pedicellis longioribus, calycis labio utroque integro.

Lupinus pulchellus. *Swt. hort. brit. edit.* 2. p. 589.

A handsome upright frutescent species, producing many branches: *branches* erect, somewhat angular, thickly clothed with a very short close pubescence, stained with purple at the joints. *Leaves* alternate, producing from 7 to 5 leaflets, which are oblongly or broadly lanceolate, acute, terminated by a long sharp mucrone, attenuated towards the base, punctated with innumerable small dots, densely clothed with short downy hairs underneath, that are close-pressed to the leaflet, and give it a whitish appearance; upper side smoother, but thinly clothed also with close-pressed hairs, scarcely discernible without the aid of a lens, giving a somewhat silky appearance. *Petioles* about the length of the leaflets, dilated at the base, where they are joined to the stem, thickly clothed with short woolly down, nearly cylindrical. *Stipules* setaceous or bristle-like, very slender, attached to the base of the petioles. *Racemes* terminal, pedunculate. *Peduncles* about three inches long, thickly clothed with a short woolly pubescence. *Flowers* in a longish raceme, rather crowded, produced in whorls of 5 or 6 in each. *Bractes* small, similar to the stipules but shorter, deciduous. *Pedicles* short, cylindrical, clothed with short woolly down. *Calyx* 2-lipped, silky: both the lips entire: the upper one short, ovate, scarcely

acute; the lower one more than twice the length, lanceolate, taper-pointed. *Vexillum* broad and rounded, slightly emarginate at the point, channelled on the upper side and keeled at the back, of various shades of purple and blue intermixed, lightest when first expanded, becoming gradually darker.

Wings about the length of the *vexillum* or a very little longer, ovate, unequal-sided, rounded at the points, slightly eared near the base, with a very short unguis, of a bright light blue, slightly edged with purple, and striped with a few short lines on the inside near the base. *Keel* ascending, terminated in a sharp point, white, tipped with a blue-purple, attached at the base by a short slender unguis on each side. *Stamens* 10, united into a long tube: the filaments smooth, and distinct at the points; *anthers* variable, alternate ones of various length and form, 5 being more than three times the length and size of the others, and attached to the filaments by their base: the 5 short ones attached by their back. *Ovarium* densely hairy. *Style* smooth and slender. *Stigma* a small fimbriate head.

Our drawing of this handsome, and apparently new species of Lupine, was taken from a fine frutescent plant, growing in the border of the elegant Flower Garden of Mrs. Marryatt, of Wimbledon House, Surrey, where it was raised from seeds received in 1828 from Mexico; we do not find any description that will agree with it, in any of the works that we have had an opportunity of examining; and as Mexico has already produced several species, we may still expect several more from that country; the most of them prove more or less frutescent; the present plant, at the time our drawing was made, was about 3 feet high, and had produced several branches; those were all terminated with a raceme of flowers, and from one of those our drawing was taken; the plant will most probably require a little protection in Winter, the covering of a mat, or something of that kind; it thrives well in the common garden soil, and may be increased by young cuttings, planted in Spring under a hand-glass, or by seeds.

For the derivation of the generic name, see fol. 12, series 2.



1. Calyx. 2. Vexillum. 3. The two wings. 4. Keel. 5. The ten Stamens, all connected at the base, showing the unequal size of the anthers. 6. Young pod, terminated by the slender Style and fimbriate Stigma.



L.D. Smith del.

Pub. by The Academy of Natural Sciences, Oct. 1861.

W. H. H. ex.

LOPHOSPERMUM scandens.

Climbing Lophospermum.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.

Natural Order. SCROPHULARINÆ. *Brown prodr. p. 433.*

Sect. II. ANTIRRHINÆ. Antheris bilobis muticis, seminibus testâ coriaceo-spongiosâ corrugatâ v. reticulatim scrobiculata præditis.. *D. Don Linn. trans. v. 15. p. 351.*

LOPHOSPERMUM. Calyx 5-partitus. Corolla campanulata: limbo 5-lobo, subæquali. Capsula bilocularis irregulariter dehiscens. Semina imbricata, membranaceo-alata. *D. Don loc. cit. p. 352.*

L. scandens, foliis cordato-triangularibus acuminatis irregulariter grosse dentatis: inferioribus oppositis planis: superioribus alternis incisosserratis, pedunculis ebracteatis, caule suffrutescente.

Lophospermum scandens. *D. Don Linn. trans. v. 15. p. 353. Swt. hort. brit. edit. 2. p. 390.*

Besleria scandens. *Sesse et Macinno. Mss.*

Stem climbing, frutescent, becoming hard and woody at the base, much branched; *branches* spreading round in all directions, laying hold by the petioles of the leaves to each other, or to any other plant or stick within their reach, in the same manner as *Maurandia* or *Tropæolum*, thickly clothed with short spreading hairs, all tipped with minute glands. *Leaves* on long footstalks, variable in form, unequally toothed with large teeth, terminating in sharp cartilaginous points, thickly clothed on both sides with short woolly hairs, which occasions a very soft woolly feel when touched, more or less tinged with dark purple, according to the situation in which the plant is grown: *lower ones* opposite, from 4 to 6 inches long, and the same in breadth in the broadest part, varying according to the strength of the plant, cordate at the base, triangular, shortly acuminate at the point, quite flat, and divaricately spreading, dilated considerably a little above the base and terminated in a sharpish point on both sides, deeply but unequally toothed, strongly 3-nerved from the base, each of the side nerves producing two other horizontal ones a little above the base, and are again branched: *upper leaves* alternate, much smaller, not so much triangular, but more hastate towards the base, sharper toothed. *Petioles* nearly cylindrical, but slightly furrowed on the upper side, more or less purple, thickly clothed with the same glandular hairs. *Flowers* axillary, solitary, without bractes, of a bright purple, varying to rose-colour. *Calyx* deeply 5-cleft, also densely clothed with slender hairs tipped with minute glands: *segments* oblongly ovate, acute, erect, the points spreading, a

little more or less purple on the inside, and green at the back. *Corolla* tubular at the base, becoming gradually campanulate upwards, thickly clothed with slender glandular hairs; outside of a brilliant purple; on the inside from the mouth to the base, are two lines of beautiful yellow hairs, and numerous others at the insertion of the stamens: *limb* 5-lobed, lobes broad and rounded, the two upper ones considerably largest: the lower one rather smallest. *Stamens* 4, fertile, and one sterile, inserted in the base of the tube, and connected to it a little way up: *filaments* densely clothed with long hairs, where they become free from the tube, the upper part thickly clothed with short glittering glands: *anthers* two-lobed, joined by their back to the filaments; *sterile stamen* very short. *Ovary* densely clothed with bristly hairs, tipped with minute glands. *Style* thinly hairy about half-way up.

For the introduction of the present splendid climbing plant, the country is indebted to A. B. Lambert, Esq. who procured seeds out of his dried specimens that were collected in Mexico by the Botanists Sesse and Mocinno, and liberally distributed them to various collections; the specimen represented in our drawing was kindly sent to us from the rich collection of Robert Barclay, Esq. of Bury Hill, the flowers of which were more inclined to a rose colour, than any other that we have seen; at Messrs. Whitley, Brames, and Milne's Nursery, at Fulham, many plants of it are now in bloom, some in the open borders trained to a wall, and others in the greenhouse; those in the open air are generally of a deep purple, and those in the houses of a purple lilac; it certainly is a great acquisition to our collections, as it will be a strong free flowering greenhouse climber, and will make a grand plant to turn out against a wall or trellis in Spring, which it will soon cover, as it is of rapid growth; it will also be a famous plant for training inside a light window of a room; and we expect it will stand our Winters well, with the protection of a mat against a wall in severe frost; we find most of the Mexican plants succeed well by that means; it thrives well in a rich light soil, and is readily increased by young cuttings, planted under a hand-glass, or by seeds.

The generic name is derived from *λοφος*, a crest, and *σπερμα*, seed, in allusion to the form of its seeds.

1. Calyx. 2. Corolla spread open, to show the two lines of yellow hairs on the inside, and the insertion of the four fertile Stamens, and the barren one inserted between the two shortest fertile ones. 3. Stamen detached. 4. Ovary divested of the calyx, terminated by the Style and cleft Stigma.



Draba *del.*

Pub. by J. Ridgway 169 Piccadilly Nov 1890

W. & A. Smith

ÆTHIONEMA membranaceum.

Membranous-winged Æthionema.

Linnean Class and Order. TETRADYNAMIA SILICULOSA.

Natural Order. CRUCIFERÆ. *DC. reg. veg. syst. nat. v. 2. p. 139—145.*

Subordo II. NOTORHIZEÆ. Cotyledones planæ, incumbentes. Radicula dorsalis. Semina ovata immarginata.

Tribus IX. LEPIDINEÆ seu Notorhizæ Angustiseptæ. Silicula oblonga ovata didyma aut obcordata, septo angustissimo, valvis carinatis aut valdè concavis. Semina in quoque loculo solitaria aut pauca, ovata, immarginata. Cotyledones planæ, rarissimè trilobæ incisæve, incumbentes.

ÆTHIONEMA. Calyx insertione inæqualia. Petala æqualia, integra. Stamina 6, majora inter se connata aut intus dente notata. Silicula depresso-complanata, apice sæpiùs emarginata, et stylo brevi apiculata, bilocularis polysperma et tunc dehiscentis aut unilocularis 1-sperma et indehiscentis, valvis naviculatis ad dorsum expansis in alam integram aut rariùs dentatam. Semina plurima aut 2 aut solitaria in quoque loculo, ovato-oblonga, sub lente muriculata. Cotyledones ovales, incumbentes.—Herbæ aut suffrutescentes perennes aut annuæ, à basi ramosæ, diffusæ aut erectæ. Folia glaucescentia, sessilia, integra, ovato-oblonga imò linearia, inferiora sæpè opposita. Caules teretes, filiformes. Racemi conferti, quasi terminales. Pedicelli filiformes, ebracteati. Flores minini, carnei aut purpurascens. *DC. reg. veg. syst. nat. v. 2. p. 557.*

Æ. membranaceum, siliculis bilocularibus 2-spermis obcordatis confertis; valvulis dorso alatis integris, foliis linearibus distantibus strictè adpressis. *DC. reg. veg. syst. nat. 2. p. 561. Prodr. syst. nat. 1. p. 209.*

Æthionema membranaceum. *Deless. icon. select. p. 22. t. 75. Spreng. syst. 2. p. 869. Swt. hort. brit. edit. 2. p. 585. addenda.*

Lepia membranacea. *Desv. journ. bot. 3. p. 166 et 181.*

Stem suffrutescent, branching: *branches* slender, smooth, somewhat elongated, a little flexuose, spreading, the points ascending and becoming erect. *Leaves* sessile, narrowing to the base, oblongly linear, bluntish, but ending in a very short sharp point, entire, smooth, succulent, and of a dark but glaucous colour, generally bent inwards towards the stem, particularly the points, but sometimes spreading horizontally, and occasionally a little reflexed. *Racemes* terminal, several-flowered, at first corymbose, but as the flowers drop, lengthened out into a longish raceme. *Flowers* of a delicate rosy lilac. *Bractes* none. *Pedicles* smooth, slender, the lower ones rather longest. *Calyx* of 4 sepals, deciduous, unequal at the base, 2 being longer and more inflated than

the others; *sepals* oblong, obtuse, erect, with membranaceous edges. *Petals* 4, spreading; the unguis slender, slightly winged on each side: limb obovate, broad at the end but not emarginate. *Stamens* 6, four longer than the others; the longer filaments furnished with a minute tooth near the point; the shorter ones entire. *Silicules* or *seed-pods* nearly orbicular, obcordate, deeply notched at the point, the valves broadly winged, with entire membranaceous wings, 2-valved, each valve 1-seeded. *Seeds* pendulous. *Style* short, smooth. *Stigma* flattened, capitate.

Our drawing of this pretty little rock plant, was made from fine specimens sent to us, in flower, and seed, from the superb collection of Robert Barclay, Esq. of Bury Hill, in August last, where it was raised from seed received from Persia; at the same time was raised another suffrutescent species from the same country, which appears not to have been described; its habit is very similar to the present species, but its flowers are very small, and its seed-pods of a very different form; we saw it finely in flower, and with full grown seed-pods on it at the same time, the beginning of last month, and it appeared likely to continue in flower for a considerable time.

Both species appear to thrive well in a border of the Flower Garden, but being natives of Persia, they may probably be somewhat tender; it will therefore be the safest plan to keep plants of each in pots, that may be protected in frames through severe frost, or the plants may be covered with a mat or any other light covering, if left in the borders, until such time as they have had a fair trial; they thrive well in a light sandy soil, and may be increased by young cuttings, planted under a hand-glass, or by seeds. The new species may be named *Æ. parviflora*, siliculis bilocularibus 2-spermis rotundo-ovatis basi et apice emarginatis, valvulis dorso alatis integris, foliis linearibus obtusis carnosius glaucescentibus patulis aut apice reflexis, racemis elongatis, caule basi suffrutescente ramoso. The flowers of this species are of a pale rose colour, and very small.

The generic name is supposed to be derived from *αἶψα* to scorch, and *στῆμα* a stamen, in allusion to some brown tinge on the stamens.



1. A Branch terminated by full-grown seed-pods. 2. Calyx. 3. The four Petals. 4. The six Stamens, showing their unequal lengths. 5. Ovarium, terminated by the Style and small flat capitate Stigma.



J. D. Smith. Del.

Rev. by J. Ridgway Lib. Pica. N.Y. Nov. 1890.

W. J. D. S.

HABRÁNTHUS Andersoni.

Anderson's Habranthus.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆ. *Brown prodr.* 1. p. 296.

Tribus III. HIPPEASTRIFORMES. Scapus cavus. Tubi faux arcta.
Semina testâ nigrâ. W. Herbert Botan. magaz. vol. 52. 2606. p. 111.*
HABRANTHUS. Supra folio 14.

H. Andersoni, scapo 4-6-unciali unifloro, flore erecto, spathâ subunciali tubuloso apice diviso pedunculo duplo brevior, ovario fusco-viridi, perianthium patente: foliolis lato-ovatis acutis: interioribus duplo minoribus, foliis linearibus glaucis obtusiusculis, bulbo rotundo.
Habranthus Andersoni. Bot. reg. t. 1345. Sot. hort. brit. ed. 2. p. 506.

Bulb round, flattish. *Leaves* linear, bluntish, striated with faint longitudinal lines, of a pale glaucous colour. *Scape* from four to six inches in height, smooth, slightly farinose, purplish a little above the base, hollow. *Spatha* tubular, membranaceous, surrounding the peduncle, striated, cleft about one third of its length from the point; the segments ovate, acuminate, erect or spreading a little. *Peduncle* lengthened to about three inches when in seed, about two or rather more when in full bloom, cylindrical, smooth and glossy. *Flower* yellow on the inside, with a handsome bright purple ring a little above the base, the outside of a brownish purple, tinged with copper colour, variable on different plants. *Perianthium* of 6 leaflets, scarcely connected at the base, longitudinally striated with numerous prominent lines, of a reddish purple colour. *Leaflets of the perianthium* broad and flat, ending in a short acute point, obovately ovate, spreading flat, when expanded, the outer ones about twice the size of the inner ones, closely imbricate over each other. *Stamens* 6, very variable in length: *filaments* short, smooth, somewhat declining, very variable in length, about one third of the length of the leaflets. *Antthers* bursting as soon as the flowers expand: *pollen* golden yellow, granular. *Ovarium* smooth and glossy, bluntly 3-sided, 3-celled, and 3-valved, many seeded. *Ovules* in two

rows, closely lapping over each other at the edges. *Style* smooth, a little longer than the stamens. *Stigma* deeply 3-lobed, the lobes large, oblong, spreading, fimbriate, reflexed at the points. *Seeds* flat, covered with a black glossy shell, generally triangular, ending at the terminations in sharpish points.

Our drawing of this beautiful bulb was made last Spring from a plant that we received from the Clapton Nursery, now conducted by Mr. Hugh Law, (late Mr. Mackay's.) In September last, when we visited the above Nursery, we were much gratified by seeing numerous bulbs of it, still in full flower, in a border at the front of the Greenhouse, and were informed by Mr. Law, that they had continued to produce a succession of bloom, the whole of the Summer; several other curious bulbs were in flower at the same time, amongst them was *Zephyranthes mesochloa*. The bulbs were collected at Buenos Ayres by Mr. Anderson, who has been collecting seeds and bulbs entirely for the above collection, in a voyage of discovery round various parts of South America, and we understand he is now on his way homewards with a large and valuable collection.

The greater part of the plants from the neighbourhood of Buenos Ayres, endure our Winters without any, or with very slight protection, particularly the bulbous rooted plants, as the bulbs, if planted rather deep, will be out of the reach of frost; any that are rather tender may be covered up with a mat, in severe frosty weather, the mat to be removed whenever the weather is mild; the present species ripens seed in abundance, so that it may be readily increased.

For the derivation of the generic name, see folio 14 of the second series.



1. The six Stamens, showing their unequal lengths. 2. Ovarium, terminated by the Style, and fimbriate 3-lobed Stigma. 3. The same full grown and burst, the seeds not quite ripe, but their situation shown in the capsule. 4. Ripe Capsule from which the seeds have just escaped. 5. Ripe seed.



Cypripedium

Pub. by J. Ridgway 269 Pac. Railway Nov. 1882

Hedden

ERYTHRONIUM Dens canis.

Oval-leaved Dog's-tooth Violet.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. TULIPACEÆ. *Kth. synops.* 1. p. 292.

ERYTHRONIUM. *Perianthium* 6-phyllum, petaloideum, turbinato-campanulatum, cernuum: foliolis a medio reflexis; tribus interioribus basi squamosis. *Stamina* 6, basi foliolorum inserta. *Antheræ* basi insertæ. *Stylus* sulcato-trigonus. *Stigma* nunc triangulare, nunc lamellis 3 canaliculatis, patentibus. *Ovarium* trigonum, erectum: valvis 3 placentiferis. *Semina* numerosa, ovata.

E. Dens canis, bulbis numerosis fasciculatis, foliis lato-ovatis abrupte acutis basi rotundatis trinerviis venosis, perianthii foliolis lanceolatis acutis patulis, ovarium obovatum profunde trisulcatum, stigmate trifido: laciniis supra canaliculatis simplicibus.


Erythronium Dens canis. *Lin.* *spec.* 2. p. 437. *Mill. dict.* n. 1. *Jacq. aust.* t. 9. *Redoute Liliac.* t. 194. *Schult. syst. veg.* 7. p. 372. *exclus. syn.* *Bot. mag.* *Swt. hort. brit. ed.* 2. p. 597.

Bulbs numerous, growing in a crowded fascicle; a little thicker than a goose quill, from half an inch, to an inch in length, thickest at the base and tapering upwards, always surrounded by numerous offsets. *Leaves* on slender foot-stalks, about three inches long, and two and a half broad, broadly ovate, terminated abruptly in a short point, and rounded at the base, three-nerved from the base, and veined with innumerable small veins, covered on both sides with minute sparkling scales, which can only be detected by means of a lens, of a pale green, elegantly variegated with a light purplish brown. *Petioles* long and slender, smooth and glossy, of a pale pink colour, channelled on the upper side, and convex below, widened a little, close to the leaf. *Scape* or *flower-stem* erect, slender, bent round at the point by the nodding flower, smooth and glossy, slightly tinged with pale red. *Flower* terminal, nodding, about half the size of *E. longifolium* of Miller, of a purple lilac. *Perianthium* of 6 petal-like leaflets, turbinately campanulate, spreading flatly open when expanded, scarcely reflexed: *leaflets* lanceolate, acute, attenuated a little towards the base, about half the size of *E. longifolium*, of a purple lilac, pale yellow towards the base, spotted about the middle with innumerable crowded, brownish purple dots, which gives the appearance of a brown patch, if not closely examined: outer

ones naked at the base; the inner ones strongly ribbed up the centre, and bearing a thin connected white scale on the inside a little above the base, very different from those in *E. longifolium*. *Stamens* 6, inserted in the base of the perianthium: *filaments* thin and flat, every other one rather broadest, inserted in the base of the anthers: *anthers* erect, two-celled, extending to the end of the style. *Ovarium* nearly as broad as long, three-sided, deeply 3-furrowed, narrowing to the base, three-celled, many-seeded. *Style* slender at the base, thickening upwards. *Stigma* 3-cleft, the segments spreading, channelled on the upper side, but quite entire; in both varieties of *E. longifolium* they are cleft at the points.

We do not know that there has ever been a figure of the present plant published in any English work, the one published in Curtis's Botanical Magazine by that name, being quite a different species; it appears very strange that the two plants have been cultivated so many years, without any person having noticed the striking specific differences, though these were well known to the old Botanists; we are obliged to Mr. T. Milne, of the Fulham Nursery, where our drawing was made, for first pointing out to us that they were certainly very distinct species; and on examining them, we found several essential characters to distinguish them apart immediately, one of which is, the present species has the segments of the stigma entire, its leaves are oval, bluntish, and rounded at the base: in *E. longifolium* the segments of the stigma are all bifid at the points, the leaves are much longer and narrower, and attenuated to the base and point, and the flower is nearly twice the size, and the leaflets of the perianthium much broader: the bifid segments of the stigma are shown in the figures of Clusius, and Lobel, so that their plants are certainly the same; they are both quite hardy, and succeed well in the common flower borders; the present species produces numerous offsets from the root, the other not so many; they may also be increased by seeds; the present one is a native of Germany, and needs not the least protection.

The generic name is derived from *ερυθρος*, red, from the red and purple spots and patches on the leaves.



1. One of the outer leaflets of the Perianthium, naked at the bottom, the Stamen inserted in the base. 2. One of the inner leaflets, furnished with a white scale a little above the base. 3. Ovarium, terminated by the Style and trifid Stigma, the segments entire at the points.



Ad. by J. M. Gray.

Ad. by J. M. Gray. 1882. Acad. Sci. Nov. 1880.

Waddell x.

DENTÀRIA digitàta.

Fingered-leaved Toothwort.

Linnean Class and Order. TETRADYNAMIA SILIQUOSA.

Natural Order. CRUCIFERÆ. DC. *syst. nat.* 2. p. 139.

Subordo I. *PLEURORHIZÆ*. Cotyledones planæ, accumbentes. Radicula lateralis nempè rimæ cotyledonum incumbens. Semina compressa, interdum marginata.

Tribus I. *ARABIDÆE* seu *Pleurorhizæ* Siliquosæ. *Siliqua* plus minus elongata, linearis aut teres, bilocularis, bivalvis, dehiscens, septo lineari, stylo abbreviato, valvulis planis convexis aut subearinatis. *Semina* in quoque loculo plurima, 1-2 serialia, ovalia aut orbiculata, compressa, sæpè marginata. *Cotyledones* planæ accumbentes. DC. *syst. veg.* 2. p. 161.

DENTARIA. *Calyx* basi æqualis, erectus. *Petala* unguiculata, limbo obovato aut ferè obcordato. *Stamina* libera, edentula. *Siliqua* sessilis, lanceolata, apice attenuata, compressa, valvis planis enerviis septo angustioribus elasticè sæpè revolutis; *stylo* filiformi; stigmate subsimplici. *Funiculi* umbilicales alato-dilatati. *Semina* ovata, immarginata, uniserialia. *Cotyledones* crassiusculæ, accumbentes.—Trunci radicales *carnosi, horizontales, irregulariter dentati, parcè fibrillosi*. Scapi erecti, apice racemum gerentes. Folia radicalia nulla aut pauca longe petiolata; caulina in medio scapi sæpiùs tria alterna aut verticillata, petiolata, palmatim pinnatifidve secta. Pedicelli filiformes, ebracteati. Flores albi, aut subochroleuci aut subpurpurascetes. DC. *syst. veg.* 2. p. 271.

D. digitata, foliis caulinis plurimis alternis petiolatis palmatim 5-sectis; segmentis oblongo lanceolatis acuminatis grosse serratis. DC. *syst. veg.* 2. p. 276. *Prodr. syst. veg.* p. 155.

Dentaria digitata. *Lam. dict.* 2. p. 268. DC. *fl. fr. ed.* 3. v. 4. p. 686. *Swt. hort. brit.* p. 20. *edit.* 2. p. 24.

Dentaria pentaphyllos. *Scop. carn. ed.* 2. n. 814. *Vill. dauph.* 3. p. 364.

Ait. Kew. ed. 1. v. 2. p. 387. *Willd. spec.* 3. p. 480. *Bot. mag. t.* 2202. *Cardamine pentaphylla*. *Brown hort. kew. ed.* 2. v. 4. p. 101.

Perennial. Root horizontal, bearing numerous large, thick, fleshy, roundish scales, intermixed with the fibres. Stems erect, simple, from 6 inches to a foot, or a foot and half in height, the upper part somewhat flexuose, naked at the base, smooth, of a pale glaucous colour. Leaves three on the upper part of the stem, alternate, petiolate, palmately divided, generally into five segments, sometimes the upper one producing only three, and the lower one rarely producing seven: segments oblongly lanceolate, tapering to the

point, deeply and irregularly serrated, fringed with short hairs; the teeth very sharp. *Racemes* compact, generally 10 or 12-flowered. *Pedicles* flattish. *Calyx* of four sepals, erect, equal at the base. *Petals* 4, obovate, with a long slender unguis, bright light purple. *Stamens* 6, two shorter than the others: *filaments* flattish, smooth. *Style* scarcely so long as the stamens. *Stigma* capitate.

Our drawing of this beautiful and rare plant, was made last Spring, from fine specimens sent us from the garden of Robert Barclay, Esq. at Bury Hill, near Dorking, the only collection in which we have seen it, for a length of time; it there makes a splendid appearance, when flowering in patches in the borders in May and June; no other flower in the open borders at that time can exceed, or scarcely rival it in beauty, and it deserves to be in general cultivation; we know not the reason why it is at present so scarce, as it appears to thrive and grow luxuriantly in Mr. Barclay's garden without the least care; it increases slowly at the root, but would without doubt ripen plenty of seeds, if a little pains were taken with it when in bloom; it is a native of various parts of the South of Europe, and varies with white and purple flowers; the present variety appears to be one of the finest coloured ones, and is therefore the most valuable to be acquired. One species only, the *D. bulbifera*, is a native of this country.

The generic name is derived from *Dens*, tooth, from the scaly appendages at the root being in the form of teeth.



1. Calyx. 2. The four Petals. 3. The six Stamens, showing their unequal length. 4. Ovarium, terminated by the slender Style, and small capitate Stigma.

HABENARIA lacera.

Torn-flowered Habenaria.

Class and Order. GYNANDRIA MONANDRIA.

Natural Order. ORCHIDEE. *Brown prodr. p. 309.*

Sect. I. MONANDRÆ. *Anthera* adnata subterminalis persistens. *Pollinis massæ* e lobulis angulatis elastice cohærentibus; basi affixæ. *Brown in Hort. kew. ed. 2. v. 5. p. 188.*

HABENARIA. *Perianthium* ringens, foliolis 3 v. 5. in galeam conniventibus. *Labellum* basi subtus calcaratum v. subsaccatum. *Anthera* terminalis, loculis adnatis, basibus quandoque solutis elongatis. *Massæ pollinis* pedicellatæ, pedicellis singulis basi glandulæ respondenti nudæ insertis. *Brown prodr. p. 312.*

H. lacera, labello tripartito; laciniis digitato-laciniatis: lacinulis filiformibus; calcar ovarium subæquante, spica multiflora elongata, bracteis foliaceis inferioribus flore multo longioribus, foliis lanceolatis acutis carinatis basi vaginantibus.

Habenaria lacera. Brown prodr. nov. holl. 1. p. 312. Spreng. syst. 3. p. 693.

Lodd. bot. cab. t. 229. Swt. hort. brit. ed. 2. p. 484.

Orchis lacera. Michx. flor. amer. 2. p. 156. Pursh. fl. amer. sept. 2. p. 586.

Pers. syn. 2. p. 603.

“ *Root* composed of 2 long tubers, about the thickness of a quill, about 4 inches in length, running down nearly perpendicular, and of equal thickness.” *Plant*, when in flower, from 18 inches to 2 feet in height, erect, leafy, sharply angled, smooth, somewhat glaucous. *Leaves* several, sheathing the stem at the base, lanceolate, acute, sharply keeled underneath, striated with numerous longitudinal lines, deeply channelled on the upper side, of a pale glaucous green, particularly underneath. *Spike* terminal, many-flowered, from 5 to 7 inches in length. *Bractes* leaf-like, the lower ones nearly twice the length of the flowers; upper ones smaller, scarcely so long as the flower; all lanceolate, acute, of a thin texture, and more or less channelled on the upper side. *Flowers* of a greenish white, elegantly jagged. *Perianthium* ringent, smooth; upper leaflet short, ovate, obtuse, concave inwards, curved downwards at the point, striated; the 2 lower ones rather smaller, also ovate and obtuse, striated, bending back when the flower is fully expanded; 2 inner side ones linear, obtuse, spreading, of a greenish white. *Labellum* 3-

parted, of a greenish yellow ; the segments spreading, tapering inwards, and widening towards the points, divided into numerous slender filiform segments, some of which are again divided. *Spur* about the length of the ovarium, flattened, and increasing in breadth from about the middle. *Anther* 2-lobed, connected to the point of the stigma. *Pollen-masses* pedicled, pale yellow. *Ovarium* angular, somewhat twisted.

Our drawing of this pretty and curious Orchideous plant, was made from a fine specimen, kindly sent to us from the splendid collection of the late Robert Barclay, Esq., of Bury-hill, who received it from North America. For the account of the root, we are obliged to Mr. David Cameron, the intelligent Gardener, who observes, the root is now producing an offset, which is not a very general case in this tribe. It is a native of low meadows, from Pennsylvania to Virginia, flowering in July, according to Pursh, whose specimen we have seen, preserved in Mr. Lambert's Herbarium ; the specimen was not above half the length of the present, which may, therefore, be considered a very strong one. From its appearance, we should suppose it partial to peat soil, or some deep light earth, in a moist and somewhat shady situation ; but, as it is at present very scarce, it will probably be some time before it can be procured, except by roots, fresh imported from America.

We have no doubt but the Orchideous plants might all be readily raised from seeds, by planting turfs of grass on the plants, for the young plants to have to attach their roots to, when the seeds first vegetate, as they appear to be all more or less parasitic when in a young state, and die off as soon as they vegetate, if they have not some plant to attach their young roots to.

The generic name is from the Latin, derived from *Habena*, a thong or strap, in allusion to the long thin spur of the flowers of many species belonging to the genus, some of them being of an enormous length.



1. Perianthium divested of the labellum, to show the 5 leaflets, and the twisted ovarium at the base. 2. Labellum spread open, with the long spur at the base. 3. The two-lobed Anther, showing the pedicelled Pollen-masses.



Trichostema

Trichostema

Pub. by Ridgway, 1881, Linn. Soc. 1882

PHLOMIS Herba-venti.

Rough-leaved Jerusalem-Sage.

Linnean Class and Order. DIDYNAMIA GYMNOSPERMIA.

Natural Order. LABIATÆ. *Brown prodr. p. 490.*

Tribus V. NERPEÆ. *Bentham in Botanical Register.*

PHLOMIS. *Calyx 6-gonus, 5-dentatus. Corolla galea incumbens, carinato-compressa, barbata, emarginata v. incisa; labium inferius proportionatum; lobo medio majore. Stigma labio superiore breviorè. Brown Hort. kew. edit. 2. v. 3. p. 406.*

P. Herba-venti, hirsuta, foliis venoso-rugosis serratis subtus hirsuto-tomentosis, inferioribus cordato-oblongis petiolatis, floralibus subsessilibus lanceolatis, calycis dentibus patentibus bracteisque subulatis hirsutis. *Spreng. syst. veg. 2. p. 742.*

Phlomis Herba-venti. Willden. spec. plant. 3. p. 122. Pers. syn. 2. p. 127. Marack. Dieb. taur. cauc. v. 2. p. 56. Hort. Kew. ed. 2. p. 406. Spreng. syst. 2. p. 742. Stet. hort. brit. edit. 2. p. 406.

Perennial, herbaceous, producing many stems from the root, which again branch in all directions: *branches* opposite, bluntly quadrangular, densely clothed with long entangled villous hairs. *Leaves* serrated, hairy, green on both sides, not clothed with white down underneath as in *P. púngens*, of a glossy green on the upper side, and paler underneath, strongly and numerously nerved underneath, reticulately veined, rugose: *lower ones* on long petioles, cordate at the base, oblong; not ovate, and attenuated at the base, as in *P. púngens*: *stem ones* on short flat winged footstalks, ovately oblong, rounded at the base, tapering towards the point, scarcely acute: *upper ones* nearly sessile, oblongly lanceolate, all more or less serrate. *Petioles* channelled on the upper side, and furrowed with a deep furrow on each side. *Flowers* sessile, in whorls round the stem, in the axils of the leaves, not on short footstalks, as in *P. púngens*. *Bractes* subulate, little more than half the length of *P. púngens*, not extending to the ends of the segments of the calyx as in that species, the points curved inwards, much less spreading than *P. púngens*, thickly clothed with long spreading stiff hairs. *Calyx* tubular, narrow at the base, and widening upwards, 5-toothed, 10-angular, the angles terminated with the teeth

most prominent, hairy, green, the teeth sharp and subulate: in *P. púngens* the calyx is much longer and white, with short wool, and the teeth about twice the length. *Corolla* tubular, 2-lipped, clothed with little fascicles of short hairs: *upper lip* helmet-shaped, bluntly keeled, more deeply notched at the point, and shorter than *P. púngens*: *lower lip* 3-lobed; terminal lobe broad, ovate, slightly notched at the point, the side ones small, lanceolate, acute, generally reflexed, or revolute; in *P. púngens* they are inflexed. *Stamens* 4, 2 a little longer than the others, inserted in the tube: *filaments* declining, at first inclosed in the helmet, at length their points are exerted, of a glossy whiteness, but more or less clothed with weak hairs. *Carpella* 4, ovate, glossy, inserted in the base of the calyx. *Style* glossy, also slightly hairy, the point declining. *Stigma* 2-cleft, the upper segment very short, straight, purple; the lower one more than 4 times the length.

We have now the pleasure of giving a figure of the true *P. herba venti*, and of pointing out the distinctions between it and *P. púngens*, which was before done by Marschall Bieberstein, in his *Flora Taurico-Caucasica*. Our drawing was taken from a plant in fine flower, this Summer, at the Botanic Garden, belonging to the Apothecaries' Company, at Chelsea, where it was raised by Mr. W. Anderson, from seed received from Dr. Fischer. It is a very handsome herbaceous perennial, continuing to produce an abundance of flowers the greater part of the Summer, succeeding well in the common garden soil, and may be increased, though sparingly, by dividing at the root, or by seeds, which sometimes ripen; it is well deserving cultivation in all collections of hardy flowering plants.

The generic name is derived from $\phi\lambda\omicron\gamma\mu\omicron\varsigma$, a flame, the *P. Lychnites* being called Lamp-wick, in English, from the cottony surface of the plants being used for making wicks for lamps.



1. Calyx, with the bracte at its base. 2. Corolla split open. 3. Tube split open, to show the insertion of the 4 Stamens. 4. The 4 Carpella, and the Style, terminated by an unequally cleft Stigma.

HELIANTHUS petiolaris.

Long-petioled Sunflower.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam.* 3. p. 103.

Subordo X. HELIANTHÆ. *Cassini in journ. de phys.* tom. 76. p. 111.

HELIANTHUS. *Involucrum* polyphyllum, imbricatum. *Receptaculum* planum paleaceum. *Flosculi disci* tubulosi, hermaphroditi; *radii* ligulati, neutri. *Akenia* compressa, coronata squamis (sæpius duabus) aristatiformibus, deciduis.—*Herbæ sæpius altissima, rarius frutices. Folia opposita aut alterna, integra, sæpissime nervata, magis minusve rigida et aspera. Flores terminales, sæpius corymbosi, radio luteo.* *Kth. synops.* 2. p. 473.

H. petiolaris, annuus, foliis alternis ovatis acutis integriusculis longissime petiolatis scabris, caule erecto ramoso, floribus longe pedunculatis, seminibus villosis. *Nuttall in journ. of the Academy of Natural Sciences of Philadelphia.* 1821, v. 2. part. 1. p. 115.

Helianthus petiolaris. *Swt. hort. brit. edit. 2.* p. 309.

Annual, erect, with the stem much branched. *Leaves* mostly alternate, ovate, or ovately lanceolate, and somewhat undulate, very rough, 3-nerved, somewhat glossy, some of the larger leaves somewhat serrated, but the greater part entire, or nearly destitute of serratures. *Petioles* very long, rough and hairy. *Peduncles* also very long, solitary. *Involucrum* of numerous scales or leaflets, that are linearly lanceolate, acute. *Receptacle* chaffy, the chaff mostly 3-toothed. *Rays* large and spreading, of a golden yellow, producing a barren style, and 2-cleft spreading stigma. *Floret of the disk* tubular, 5-toothed. *Stamens* 5: *filaments* distinct: *anthers* united into a tube. *Akenia* or *Seed* clothed with a short silky brown pubescence, spotted, terminated by 2 aristas, surmounted by the style, and villous stigma.

This handsome and very distinct species of annual Sunflower, is a native of the sandy shores of the Arkansa, flowering in August, according to Nuttall, who was its first discoverer, and who published it in the Journal of the Academy of Natural Sciences, of Philadelphia, in the year 1821; and seeds were sent by him to the collection of the late Robert Barclay, Esq., at Bury-hill, in 1826, in whose collection it has flowered every year since. Mr. Cameron informs us, he has also received seeds of it from Germany, under the name of *H. asper*, of Roth; but we see no such a species described in any work that we have examined, and Nuttall's name of course must be the original one, as he was its first discoverer.

It is certainly a valuable addition to our autumnal annuals, as it continues to bloom from August to November, if the weather continues favourable, requiring only to be sown in the open ground; or it may be rose in pots, in frames, or on an annual bed, and from thence be transplanted into the open borders.

The generic name is derived from $\eta\lambda\iota\omicron\varsigma$, the Sun, and $\alpha\nu\theta\omicron\varsigma$, a flower.



1. Scale of the chaff at the base of one of the florets of the disk. 2. One of the Rays cut off, showing the barren Stigma. 3. Floret of the disk spread open to show the nerves. 4. The 5 Stamens, the filaments distinct, and anthers united into a tube. 5. Akenia or Seed, terminated by 2 aristas, and surmounted by the style, and bifid stigma. 6. Capitulum cut through the middle to show the chaff on the receptacle.

NOTE, by Mr. D. Don, to the description of *LOPHOSPERMUM*, given at folio 68 of No. 17.

“The seeds of the above interesting plant were obtained from specimens collected in thickets, near Jalapa, in September, 1829, by Messrs. Deppe and Schiede, two German Botanists, who have been for some time in Mexico. Dr. Schiede states it to be rare. It was at first supposed to be the same with the species of Sessè and Mocimno, described in the fifteenth volume of the Linnean Transactions; but a more accurate comparison proves it to be essentially different; a separate character and name being, therefore, necessary, we propose the following for it.”

L. erubescens, foliis triangulari-cordatis grossè inæqualiterque serratis pubescentibus, calycis segmentis oblongis mucronulatis, filamentis simplicibus. *D. Don Mss.*

“The posterior lobes of the leaves are truncate, and the pubescence shorter, and mostly, if not always, inarticulate; while in *L. scandens*, the leaves are cordately ovate, with short rounded lobes, and clothed, as well as the stem, with long jointed hairs; the lateral nerves are free to the base; the teeth are sharper, the calycine segments are attenuated into a long acuminate point, and the filaments are geniculate below the middle. The rudiment of a fifth stamen noticed by my accurate friend, Mr. Sweet, in *L. erubescens*, I find to be also present in *L. scandens*, which, like the former, has probably, likewise, a suffruticose stem.”

“The *Lophospermum physalodes* proves to be the type of a new genus akin to *Gerardia*, which may be characterised as follows.”

GASTROMERIA. *Calyx* subglobosus, membranaceus, inflatus, 5-dentatus. *Corolla* campanulata, basi subæquali: *limbo* 5-lobo, bilabiato. *Stamina* 4, didynama: *filamenta* simplicia, glabra: *antheræ* oblongæ: *loculis* superne confluentibus, basi solutis, divergentibus, muticis. *Ovarium* biloculare: *Septo* utrinque placentifero: *ovulis* minutis, angulatis, numerosissimis. *Fructus*—Frutex (Mexicanus) *setulis callosis scaber*. Folia *opposita, subpetiolata, oblonga, acuta, dentata, pinnati-nervosa*. Flores *axillares, solitarii, pedunculati*. Pedunculi *uniflori, bibracteati*. *Calyx* *vi-rens*. *Corolla magna, purpurea? sesquipollicaris*. *D. Don Mss.*

We have lately seen fine specimens of *L. scandens*, in Mr. Lambert's Herbarium, and find it is perfectly distinct from our plant, and a still finer species, a branch about a foot long, having a dozen open flowers on it. Our plant at folio 68, must, in future, bear the name of *L. erubescens*. *R. Sweet.*



F.D. Juncos del.

Printed by J. P. Juncos, 1880, according to the original.

Printed by J. P. Juncos, 1880.

ERYTHRONIUM longifolium. *α.* et *β.**Long-leaved Dog's-tooth Violet.**Linnean Class and Order.* **HEXANDRIA MONOGYNIA.***Natural Order.* **TULIPACEÆ.** *Kth. synops.* 1. p. 292.**ERYTHRONIUM.** *Supra folio* 72. *series* 2.

E. longifolium, bulbo subsolitario maximo, foliis oblongis lanceolatisque basi et apice attenuatis nervosis, perianthii foliolis oblongo-lanceolatis acutis supra medium reflexis, ovarium ovatum leviter trisulcatum, stigmate profunde trifido: laciniis supra canaliculatis apice bifidis.

Erythronium longifolium, foliis lanceolatis. *Erythronium with spear-shaped leaves.* *Miller's dictionary.* n. 2. *Poir. encycl.* 8. p. 660.

Dens Canis angustiore longioreque folio, flore ex albo purpurascente. *Casp. Bank. pin.* 87.

α rubrum. foliis saturatoribus, floribus rubellis. *Supra α.*

Erythronium Dens canis. *Curtis Bot. magaz. t. 5. nec aliorum.*

Erythronium bifidum. *Swt. hort. brit. edit. 2. p. 597.*

β albidum. foliis pallidioribus, floribus albidis. *Supra β.*

Erythronium flore albo, angustioribus foliis. *Lobel. ic. p. 196. bon. Clus. hist. p. 266. cap. 60. bon.*

Bulb solitary, or producing but few offsets, from an inch and a half to 2 inches in length, and about the thickness of the finger. *Leaves* about 4 inches in length, and 2 in breadth, oblong or oblongly lanceolate, tapering to the base and point, strongly veined with numerous veins on the under side, covered on both sides with a minute scaly pubescence, as in *E. Dens canis*, of a bright green, elegantly variegated with a glossy purplish brown, much brighter than in *E. Dens canis*. *Petioles* short, deeply channelled on the upper side, and rounded below, tinged with a pale salmon colour. *Scape* or *flower-stem* erect, cylindrical, bending round near the flower, smooth, pale salmon-coloured. *Flower* terminal, nodding, double the size of *E. Dens canis*, turbinate campanulate. *Perianthium* of 6 petal-like leaflets, spreading, more or less reflexed from the middle, oblongly or broadly lanceolate, acute; of a rosy lilac, pale yellow at the base, above which it is marked with confluent brown spots; the outer ones considerably largest, all tapering to the base; inner ones strongly ribbed up the centre, furnished with a white membranaceous scale, a little above the base, that is lowest in the middle, and extends on each side. *Stamens* 6, scarcely so long as the style: *filaments* flat, slender at the base, widen-

ing upwards, and becoming slender again at the points, where they are inserted into the base of the anthers: *anthers* erect, 2-celled, scarcely extending to the end of the style. *Ovarium* large, oval, slightly 3-furrowed, narrowing to the base, 3-celled, many seeded. *Style* bent at the base, very slender, thickening upwards. *Stigma* deeply 3-cleft, the segments all cleft again at the points.

Var. β *albidum*, differs chiefly in its leaves being paler, and its flower white, marked with yellow at the base, and marked, more or less, with inconspicuous small brown specks.

We now favour our readers with the other species of *Erythronium*, so long confused with *E. Dens canis*, though so well distinguished by the early authors. The figure in the Botanical Magazine is a weak specimen of the present plant, as may be readily seen by the cleft points of the segments of the stigma, and by the form of the foliage; it was well distinguished by Miller, both the varieties; the white one was also well figured, both by Clusius and Lobel, and the cleft segments shown in both their figures. We are obliged to Mr. Thomas Milne, of the Fulham Nursery, for first pointing out to us that they were certainly different species, and on examining them we were directly satisfied that such was the case. Our drawing of both the above varieties in the figure, was made from plants, in the Fulham Nursery, where a great quantity of both species, and the white variety, are cultivated with great success; the ground being light and dry, occasions them to grow with great luxuriance, and produce a great quantity of flowers, in March and April. The present species is a native of Italy, and the South of Europe; and we are informed by Mr. D. Don, that there is a specimen of it in the late Sir J. E. Smith's herbarium, marked as having been received from Switzerland. In our *Hortus Britannicus*, we have given it under the name of *E. bifida*, not having then ascertained that it was so well distinguished by the ancient Botanists. Both varieties thrive well in the open borders of the Flower Garden, but neither of them produce near so many offsets as *E. Dens canis*.

For the derivation of the generic name, see folio 71, of the last Number.



1. Root. 2. Outer leaflet of the Perianthium, with the Stamen united to the base. 3. Inner leaflet considerably smaller, showing the membranaceous scale a little above the base. 4. Ovarium, terminated with the Style that is twisted at the base a little, terminated by the 3-cleft Stigma, the segments cleft at the points.



L. J. Smith del.

Pub. by J. B. Baquet & Co. Paris, Jan. 1821.

M. J. B. del.

ALSTRŒMÈRIA acutifolia.

Taper-pointed-leaved Alstræmeria.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆ. *Kth. synops.* 1. p. 288.

Sect. IV. ALSTRŒMERIÆ. *Perianthium* subcampanulatum, sex-partitum, irregulare. *Stigma* trifidum. *Capsula* trilocularis; loculis polyspermis. *Semina* rotunda, sæpè extùs carnosà.—*Radix tuberosa.* *Herbæ caulescentes:* caulis erectus scandens aut volubilis, foliatus. Flores terminales, umbellati aut subpaniculati.

ALSTRŒMERIA. Supra folio 15. series 2. et folio 228. series 1.

A. acutifolia, caule volubili glabro, foliis oblongo-lanceolatis longe et acutissime acuminatis multinerviis basi tortis: supra nervis pilosis; subtus lævigatis nitidis, umbellis multifloris, pedunculis hispidulis subbifloris bracteatis, perianthii foliolis exterioribus paulo brevioribus.

Alstræmeria acutifolia. *Otto ex Hort. Berol. Swt. hort. brit. ed. 2. p. 516.*

Stem climbing, twisted, very slightly angular, smooth, green, or slightly tinged with purple. *Leaves* alternate, petiolate, twisted at the base, so as to make the upper part of the leaf downwards, oblongly lanceolate, tapering to a long, slender, acute point, also attenuated towards the base, many-nerved, the nerves longitudinal, of a bright glossy green on the under side, and quite smooth, which, from the twist at the base of the leaf, always turns uppermost; nerves on the upper side thickly covered with spreading hairs, but those appear always downward. *Petioles* short, rigid, slightly winged, purple at the base, flattened on the upper side, and keeled below. *Umbel* terminal, many-flowered, bracteate at the base. *Involute* of several unequal bractes, some lanceolate, others linear, acute, of a brown purple. *Peduncles* flattened and angular, covered with short red bristly hairs, as is also the ovary, bracteate near the base in some, in others about half way up, about an inch and a half long in our sample, 1 or 2, or sometimes apparently 3-flowered, there being a sort of abortive bud in the axils of the bractes in our specimen, which, perhaps, when grown stronger, will all produce perfect flowers; as this was the case with *A. hirtella*, when it first flowered, it produced abortive buds in the axils of the bractes, which, when grown stronger, all became perfect flowers. *Ovary* inferior, or below the perianthium, bluntly trian-

gular, clothed with short red bristles. *Perianthium* in our specimen of 6 really distinct leaflets, not in the least connected at the base, of a bright dark red, between crimson and scarlet on the outside, and orange within : 3 outer ones rather shortest, spathulate, obtuse, with a small callosity at the back a little below the point, hollow on the inside, and striated with several inconspicuous stripes at the back ; 3 inner ones broader at the point, and narrower at the base, where it is incurved, keeled down the back, and furrowed on each side of the keel. *Stamens* 6, inserted in the very base of the leaflets : *filaments* smooth, somewhat flattened at the base, tapering upwards to a fine point, which is attached to the back of the anthers, yellow, slightly tinged with pink. *Style* smooth, pinky at the base, and yellow upwards. *Stigma* 3-cleft, the segments short, spreading, pustulose.

Our drawing of this most beautiful species of *Alstrœmeria*, was taken from a specimen that flowered in the open border, in the rich collection of Charles Barclay, Esq., of Bury Hill, in August last : the plant was received from Mr. Otto, Curator of the Botanic Garden, at Berlin, under the name that we have adopted. When we visited Mr. Barclay's collection, in the beginning of October last, the plant was still in fine bloom ; and in a letter we received from Mr. Cameron, the gardener, on the fifth of November, he informed us that it still continued as fine in flower, as when we saw it, so that it is a very desirable plant ; and we have not seen or heard of it in any other collection.

In Mr. Lambert's Herbarium we have seen specimens of it, received from Dr. Schiede, who gathered them at Jalapa, in Mexico ; that, therefore, determines its native situation ; and it is most probable that the seeds were received from the same traveller, from which the plants were raised, at Berlin. The best situation for it appears to be in a warm border, by the side of a south wall, where it should be planted full 6 inches deep, in a very light sandy soil ; and it may be increased by seeds, or by dividing the root ; but we consider seeds the best, as the roots might receive injury by division.

For the derivation of the generic name, see folio 15 of the second series.



1. One of the inner leaflets of the *Perianthium*, with the *Stamen* attached to its base.
2. One of the outer leaflets, with the *Stamen* also attached to its base.
3. *Style*, terminated by the 3-cleft *Stigma*.



Edmonia del

Pub. ex J. Ruyguy 1871. P. de la Ruyguy 1871. P. de la Ruyguy 1871.

1871.

NEJA gracilis.

Slender-leaved Neja.

Class & Order. SYNGENESIA POLYGAMIA SUPERFLUA.

Natural Order. COMPOSITÆ. Adanson fam. 2. p. 103.

Fam. VII. ASTEREE. Cassini in dict. des Sc. nat.

NEJA. *Involucrum* polyphyllum, imbricatum. *Receptaculum* favosum. *Flosculi* radii fœminei, ligulati; *disci* hermaphroditi, tubulosi, 5-dentata. *Antheræ* basi muticæ. *Achenia* uniformia. *Pappus* duplex, exterior paleaceus; interior pilosus. *D. Don Mus.*

Descr. *Involucrum* hemisphæricum, triplici ordine polyphyllum, imbricatum: *squamis* lineari-subulatis, acutis, adpressis, obtusè carinatis, pilosis. *Receptaculum* convexum, favosum, squarrosum. *Flosculi* radii fœminei, plurimi, subtriplici serie dispositi, subspathulati, apice obtusè tridentati; *disci* hermaphroditi, creberrimi, tubulosi, 5-dentati, extûs parcè papilloso-pilosi: *fauce* tubo longiore amplioreque, subpentagonâ: *nervis primariis* prominulis. *Filamenta* fauci inserta, semicylindrica, glabra; *articulo superiore* dissimili, aurantiaco. *Antheræ* coalitæ, basi omninò muticæ, appendiculâ lanceolatâ, acutâ, membranaceâ coronatæ. *Stylus* teres, glaber, basi simplici. *Stigmata* cuneiformia, mucronulata, minutè papilloso-hispidula; radiis lineari-lingulata, obtusa, lævia. *Achenia* uniformia, compressa, undique sericeo-villosissima. *Pappus* duplex; exterior è paleis plurimis, linearibus, cuspidatis; interior duplò longior, pilosus, scaber.—*Planta* (Mexicana) *suffrutescens*, diffusè ramosa, *pilis longis patulis copiosis* ornata. *Rami adscendentes*, cylindrici, foliosi, nitidi, proliferi. *Folia alterna*, undique versa (*tria ad caulis circumvolutionem*) lineari-angustissima, ferè acerosa, mucronulo calloso terminata, *suprà canaliculata*, *subtùs convexa*, *basi dilatâtâ*, *adpressâ*; *intensè viridia*, *nitidissima*, *erecta*, *flexuosa*, *sesqui v. bipollicaria*; *infima marcescentia*, *persistentia*. *Flores magnitudine* Inulæ dysentericæ, *longè pedunculati*, *solitarii*, *terminales*, *v. prodeunte ramulo laterales*. *Pedunculi filiformes*, *palmares v. spithamæi*, *striati*, *vix sulcati*, *apice incrassati*. *Involucrum* *hirtum*. *Flosculi* *aurei*. *Pappus cinereo-fulvellus*. *D. Don Mus.*

Neja gracilis. *D. Don Mus. Swt. hort. brit. edit. 2. p. 299.*

“ This genus is intimately allied to *DIPLOCOMA*, figured at tab. 246, of the first series of this work, from which it is, however, essentially distinguished by the uniformity of its achenia: the present is, as far as we know, the only species of the genus. It is a native of Mexico, from whence it was introduced in 1828, by the late Robert Barclay, Esq., from whose collection the specimens were sent, from which our figure and description were taken.”

For the foregoing account of this neat and abundantly flowering Autumnal plant, we are obliged to Mr. David Don,

who is busily engaged in arranging and describing the South American and Mexican Compositæ, contained in the Lamber-tian Herbarium ; a part of which has already appeared in the last part of the Linnean Society's Transactions.

It was first raised from Mexican seed, in Mr. Barclay's collection, at Bury Hill, in 1828, where it has continued to flower in a warm border every Autumn since ; and its delicate, slender, dark green leaves, clothed with long hairs, and the abundance of its bright golden-coloured flowers, make an elegant appearance, when there is very little else in flower : it continues to bloom from September to the beginning of December, if the weather continue mild ; this is a great advantage in many of the Mexican plants that have been introduced, within a few years, their coming into flower in Autumn, after the greater part of the other flowers are over, so that the gardens may be enlivened with flowers till the hard frost sets in and destroys them. We have still *Salvia fulgens* in flower in our garden, nearly as fine as in Summer ; and while writing this, it is the 8th of December, and should the weather not set in very severe, we have no doubt but it will remain in flower all the Winter ; we also noticed the *Lophospermum* in good health, at Messrs. Whitley's Nursery, a few days ago, by the side of a wall, in a somewhat sheltered border.

The present little plant is suffrutescent, and forms a neat little bush in the border ; it will thrive well in the common garden soil, and may be readily increased by planting young cuttings under a hand-glass, in Spring, or cuttings, planted in pots, and placed in a frame, or in a shady part of the Green-house, will root without glass.

The generic name has no particular meaning ; it was given entirely as a name to the genus ; such names are generally best, and least likely to cause confusion.



1. Capitulum cut through the centre to show the dotted foveæ receptacle, and the spreading leaflets of the Involucrum. 2. Ray, with the seed at its base. 3. Floret of the disk, with the seed at its base. 4. Floret spread open, to show the nerves. 5. The 5 Stamens, the filaments distinct, and the anthers connected, and terminated with membranaceous appendages. 6. Seed, showing its double pappus, terminated by the Style and bifid Stigma.



W. H. H. H.

Pub by J. D. Smith 1881 December 1st Jan 1882

J.D. Smith del.

SAPONARIA calábrica.

Spreading Soapwort.

Linnean Class and Order. DECANDRIA DIGYNIA.

Natural Order. CARYOPHYLLÆ. *DC. prodr.* 1. p. 351.

Tribus I. SILENÆ. Sepala coalita in tubum cylindraceum apice 4-5-dentatum.

SAPONARIA. Calyx tubulosus 5-dentatus basi nudus. Petala unguiculata, ungue calycem æquante. Stamina 10. Stylis 2. Capsula 1-locularis. *DC. prodr.* 1. p. 355.

Sect. III. PROTEINIA. Flores solitarii axillares. Calyx pilosus raro glaber.

S. calabrica, caule dichotomo ramoso : ramis divaricatis piloso-viscidis, pedunculis axillaribus calyce brevioribus, calycibus teretibus piloso-viscosis, petalis patentibus spathulatis integerrimis basi attenuatis fauce squamatis, foliis inferioribus petiolatis oblongo-obovatis obtusis : superioribus subsessilibus oblongo-lanceolatis spathulatisve acutis.

Saponaria calabrica. *Gussone. Plantæ rariores per regiones Samnitiæ et Apulii.* p. 164. t. 31.

Perennial? *Annual*, according to Gussone, forked at all the joints, much branched : *branches* slender, divaricately spreading, thickly clothed with viscous hairs, tinged more or less with purple, particularly at the joints. *Leaves* opposite, variable in form and size, hairy on both sides ; lower ones petiolate, obovate, obtuse, attenuated towards the base, undulate at the margins ; the petioles furrowed on the upper side, and keeled underneath, purple : upper leaves sessile or nearly so, spathulate, or oblongly lanceolate, acute, slightly attenuated towards the base. *Flowers* axillary, solitary, of a brilliant rosy purple. *Peduncle* shorter than the calyx, cylindrical. *Calyx* cylindrical, slightly inflated, thickly clothed with spreading viscous hairs, 5-toothed ; teeth short, obtuse. *Petals* 5, each furnished with 2 straight rigid scales at the mouth, entire, spathulate, broadly rounded at the ends, abruptly attenuated from about the middle downwards, where the margins are slightly reflexed : *unguis* very slender, flat, and attenuated downwards, about the length of the calyx. *Stamens* 10 ; *filaments* smooth and slender, exserted, attached to the back of the anthers a little above the base. *Ovarium*

cylindrical, smooth. *Styles* 2, smooth, long and slender. *Stigmas* simple points.

This very charming little plant is a native of Calabria, and, according to Professor Gussone, is an annual; but from what we have seen from the general appearance of the plant, it has all the appearance of a perennial.

Our drawing was taken from a plant in the Botanic Garden, at Chelsea, belonging to the Apothecaries' Company, where it was raised from seed last Spring, and it still continues covered with flowers. Mr. Anderson has succeeded in striking some young plants from cuttings, those put on all the appearance of a perennial; we have, since our drawing was made, also received fine specimens of it from the collection of C. Barclay, Esq., of Bury Hill, where it was also raised from seeds last Spring, and in whose garden we saw a large spreading plant of it, the beginning of October last; it was there much stronger than at the Chelsea Botanic Garden, being planted in the border, Mr. Anderson's plants being in pots; should it prove perennial, it will be one of the most desirable plants for rock-work; and if only an annual, it will be one that ought to be in general cultivation. It succeeds well in any rich light soil, and strikes readily from cuttings, and appears likely to produce ripe seeds: it is certainly one of the prettiest little plants that has been introduced for a long time; and if seeds are sown early in Spring, it will flower abundantly the same season.

The generic name is derived from *sapo*, soap, whence the English name of Soapwort: the leaves of *S. officinalis* are said to lather the water when rubbed, like soap, and take out spots of grease in the same manner.



1. Calyx. 2. The 5 Petals, each furnished with two small rigid scales at the base of the limb, with a Stamen attached to the base of each. 3. The other 5 Stamens inserted in the Receptacle. 4. Ovarium terminated by the two filiform Styles.



Campanula med.

Des. by J. E. Gregory. Col. by J. E. Gregory. Jan. 1881.

CAMPÁNULA pulla.

Dark-flowered Bell-flower.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. CAMPANULACEÆ. *Juss. gen. p. 163.*

CAMPANULA. *Calyx* 5-fidus, sinibus sæpè appendicibus obtectis. *Corolla* apice 5-loba, vel 5-fida, sæpiùs campanulata. *Stamina* 5, libera: *filamentis* basi latis et membranaceis. *Stylus* in alabastro pilis collectoribus (exceptà imâ basi) tectus. *Stigmata* 3-5, filiformia. *Ovarium* omnino inferum, 3-5-loculare. *Capsula* valvis 3-5, lateraliter dehiscens. *Semina* sæpiùs ovata, complanata, interdum ovoidea et tunc minima.— *Herbæ perennes, varius biennes vel annuæ, nunc humiles et cæspitantes, nunc contrâ 2-3-pedales erectæ et multifloræ. Folia radicalia à caulinis sæpissimè diversa nempe majora, longius petiolata et obtusa. Flores plerumquè pedunculati, racemosi, varius spicati vel glomerati, pro ordine majusculi, cærulei vel (in eadem specie) albi. Omnes in hæmisphæræ boreali habitantes.* Alphonse De Candolle monographie des Campanulees. p. 213.

Sect. II. EUCODON. *Sinus calycis* appendicibus non obtecti. *Capsula* 3-locularis, lateraliter valvis nunc ad basin, nunc versùs apicem sitis dehiscens. *Alph. DC. loc. cit. p. 251.*

§. II. Capsula valvis ad basin sitis dehiscens, nutans. Lobi calycis semper integri. Flores pedicellati.

* Flores plus minusve longe pedicellati, folia radicalia sæpiùs cordata petiolata. Ferè omnes perennes.

β. Paucifloræ vel unifloræ, corollâ ferè semper glabrâ, capsulâ ovoideâ vel rariùs sphæroideâ.

C. pulla, caule humili uniflora, foliis glabris crenulatis dentatis: inferioribus brevi-petiolatis ovato-rotundatis: superioribus sessilibus ovato-acutis, laciniis calycinis longè acuminatis erectis corollâ campanulatâ duplo brevioribus. *Alphonse De Candolle monographie des Campanulees. p. 287.*

Campanula pulla. *Lin. spec. plant. p. 231. Willd. spec. 1. p. 890. Jacq. obs. 1. p. 30. t. 18. Aust. 3. t. 285. Pers. syn. 1. p. 188. Hort. Kew. ed. 2. v. 1. p. 344. Ram. et Schult. syst. v. 5. p. 91. Spreng. syst. 1. p. 725. Lodd. bot. cab. t. 554. Bot. mag. t. 2492. Swt. hort. brit. edit. 2. p. 325.*

Roots filiform, creeping, throwing up innumerable short stems, all terminated by a single flower. **Stems** about a span high, erect, or somewhat flexuose, slender, a little angular, and slightly clothed with close pressed hairs, glossy, leafy above half way up. **Leaves** sessile, or on very short footstalks, ovate, attenuated towards the base, more or less crenate, smooth on both sides, and fringed with long, loose, white hairs

towards the base: lower ones bluntish; upper ones acute, and narrower. *Peduncle* terminal, slightly angular, smooth. *Flower* very handsome, nodding, of a dark blue colour. *Calyx* 5-cleft, the segments straight, subulate, spreading. *Corolla* bell-shaped, shallowly 5-lobed, of a deep blue colour, 5-angled, the angles terminating in short pointed lobes. *Stamens* 5: *filaments* very slender, dilated at the base, smooth, inserted into the base of the linear anthers, shorter than the corolla. *Ovary* acutely angular, smooth, and glossy. *Style* about the length of the corolla, smooth below, and pubescent from above the middle. *Stigma* 3-cleft, the segments revolute, and fimbriate.

The present beautiful little species may be considered as one of the most desirable alpine plants that can be cultivated, either in small pots, or on rock-work, or by the edge of a border in the flower-garden: the neat tufted habit, and the great abundance of its flowers, make it a delightful little plant; it is also quite hardy, being a native of Austria, Styria, and Carniola. If planted in pots, an equal mixture of light loam and peat is a proper soil for it, and the same in rock-work; but if planted in the open border, the soil should be light, and pretty dry, or it might be injured with too heavy a soil, or too much moisture; its flowers are produced in June and July, when they make a beautiful appearance; it is readily increased by dividing at the root.

Our drawing was made from a plant at the Nursery of Messrs. Whitley, Brames, and Milne, at Fulham, where numerous pots of it were in full flower last Summer.

The generic name is from the Latin, a diminution of *campana*, a little bell, from the bell-shaped form of the corolla.



1. Calyx. 2. The 5 Stamens. 3. Style, terminated by the 3-cleft Stigma.



L.D. Smith. del.

Robt. & H. Gray, in Botanical Bee 1827.

Bot. Bee

ESCALLONIA glandulosa.

Glandular Escallonia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.

Natural Order. ESCALLONEÆ. *R. Brown, in Franklin's Narrative of a Journey to the Shores of the Polar Sea, in the years 1819—1822. p. 765.*

ESCALLONIA. *Calycis tubus* semiglobosus ovario adnatus, limbus 5-dentatus, 5-lobusve. *Petala* 5 calyce inserta. *Stamina* 5; antheræ ovato-oblongæ. *Stylus* filiformis persistens. *Stigma* peltatum, sulco subbilobum. *Capsula* baccata, calycinis lobis styloque coronata, subbilocularis, basi poris irregulariter rumpens, dissepimento supernè incompleto et ibi placentifero. *Semina* numerosissima scrobiculata.—Arbores fruticesve (*ex Amer. aust.*) *ortæ sæpè resinosa.* *Folia sparsa serrata aut integra.* Flores *subterminales variè dispositi, bracteati, albi aut rosei.*—In speciebus duabus (*E. punctata* et *rubra*) urceolus adest conicus pervius basi stylum cingens? An, ex hac causâ, genus aut sectio propria formanda? sed habitus cum aliis speciebus omninò congruit. *DC. prodr. par. 4. p. 2-3.*

**** Floribus in racemos paniculasve terminales dispositis.**

E. glandulosa, ramis erectis: junioribus subangulatis viscoso-glandulosis, foliis oblongo-ellipticis obtusiusculis basi attenuatis petiolatis glabris margine crenulatis: supra nitidis: subtus penninerviis reticulato-venosis, racemis terminalibus foliosis, pedunculis subtrifloris calycibusque viscoso-glandulosis, calycis dentibus subulatis integerrimis patentibus, petalis obovato-spathulatis.

Escallonia glandulosa. *Lodd. bot. cab. t. 1291. Swt. hort. brit. edit. 2. p. 239.*

A handsome, erect, bushy, evergreen Shrub: *branches* erect, or more or less spreading, clothed with a glossy red bark, when young slightly angular, and clothed with numerous little viscous sessile glands. *Leaves* rigid, smooth, oblongly elliptic, bluntish, but ending in a short point, not mucronate, finely notched at the edges, between serrulate and crenulate, attenuated towards the base, and petiolate, smooth and glossy on the upper side; underneath paler, with a strong midrib, feather-nerved, and reticulately veined: decreasing in size upwards. *Petioles* about three lines long, clothed more or less with small glands, furrowed on the upper side. *Raceme* terminal, leafy, the leaves small, and a little longer than the peduncles. *Peduncles* 2 to 3-flowered: the upper ones only 1-flowered, thickened a little at the base

of the ovarium, thickly covered with a viscous substance, and little sessile glands. *Calyx tube* semiglobular, campanulate or bell-shaped, terminated by 5 subulate teeth, which are erect before the flower expands, afterwards divaricately spreading. *Petals* 5, white, obovately spatulate, with a longish flat unguis, spreading when first expanded, the points afterwards reflexed. *Stamens* 5, inserted in the calyx : *filaments* smooth, inserted in the back of the anthers : *anthers* oblong, blunt at each end, two-celled. *Style* seated on the ovarium, smooth. *Stigma* large, fleshy, peltate, capitate, slightly 2-lobed, punctate, and viscous. *Ovarium* sharply angular, viscous, and glandular.

For the fine specimen of this handsome evergreen shrub, we are indebted to A. B. Lambert, Esq. in whose garden at Boyton it flowered in November last : it is a native of Chile, and in Mr. Lambert's Herbarium are fine specimens of it, received from Mr. Caldcleugh, who gathered them in Chile. Mr. Lambert informs us that the shrub has attained the height of five or six feet, by the side of a sheltered wall in his garden : it forms a handsome upright bushy shrub, and produces its flowers in Autumn, when little else is in flower. We have no doubt but *E. glandulosa* of Loddiges' Botanical Cabinet, is the same plant, though there is a considerable difference in the two figures : but as Mr. Lambert received it from Mr. G. Wheeler's Nursery under that name, and Mr. Wheeler having procured it from Messrs. Loddiges, there can remain no doubt about it : though the figure in the Botanical Cabinet represents the plant quite smooth, and the teeth of the calyx considerably too broad and blunt, which in ours is subulate and acute.

The present species succeeds well in a light rich soil, if planted in the border ; and it should be protected with a mat or some other slight covering in severe frost : if grown in a pot, a mixture of two-thirds sandy loam, and one-third peat, will suit it well : cuttings nearly ripened will root freely in pots of sand, under a hand-glass.

The generic name is derived from *Escallon*, a Spaniard, an American Traveller.



1. Calyx, seated on the angular Ovarium, with the 2 bractes on the pedicle. 2. The 5 Petals, seated on the base of the Calyx. 3. The 5 Stamens, seated on the base of the Calyx. 4. The angular Ovarium, terminated by the Style, and slightly 2-lobed Stigma.



Primula sp.

Primula sp. (Primula sp.)

Primula sp.

ASCLEPIAS amœna.

Oval-leaved Swallow-wort.

Linnean Class and Order. PENTANDRIA DIGYNIA.

Natural Order. ASCLEPIADEÆ. *Brown in Wern. trans. edinb.* 1. p. 12.

Tribus I. *ASCLEPIEÆ*. Pollinis massæ (10-20) cereacæ læves, nec in granulis separandæ.

ASCLEPIAS. Supra folio 18, series the second.

A. amœna, caule simplici bifariam puberulo, foliis brevi petiolatis oblongo-ovalibus acutis subtus pubescentibus, umbellis terminalibus appendicibusque triplo genitalibus longioribus erectis.

Asclepias amœna. *Mich. flor. amer.* 1. p. 118. *Pursh flor. amer. sept.* 1. p. 181. *Nuttall gen. amer.* 1. p. 166. *Willden. spec. plant.* 1. p. 1265. *Pers. synops.* 1. p. 276. *Hort. Kew. ed. 2. v. 2.* p. 80. *Rœm. et Schult. syst.* 6. p. 73. *Spreng. syst.* 1. p. 848.

Apocynum floribus amœne purpureis, corniculis surrectis. *Dill. elth.* 31. t. 27. f. 30.

Perennial, herbaceous. *Stems* erect, from 3 to 6 feet in height, smooth and glossy, but bearing two thin rows of hairs down the stem, alternate with the leaves. *Leaves* opposite, on short footstalks, oblongly oval, entire, acute, tapering, but a little rounded towards the base, smooth and somewhat glossy on the upper side; underneath paler, being there clothed with a short soft down: midrib purple, feather-nerved, the nerves horizontal and pubescent, reticulately veined. *Petioles* short, smooth, or a little pubescent at the margins, purple. *Flowers* in a large terminal umbel, bright purple, and very handsome. *Peduncle* purple, also bearing the two rows of pubescence. *Umbel* or *head* many-flowered, growing in a handsome compact form. *Pedicles* cylindrical, more or less tinged with purple, pubescent. *Calyx* deeply 5-parted, persistent: the segments lanceolate, acute, pubescent. *Corolla* rotate, deeply 5-parted; the segments broadly lanceolate, somewhat concave, acute, smooth on both sides, and of a uniform purple. *Stamineous crown* of 5 upright leaflets, hollow on the inside, each producing a subulate horn about the middle, which points inwards. *Stamens* 5, alternate with the segments of the corolla, winged on each side with a membranaceous wing attached at the base to the sta-

mineous crown, close pressed to the styles. *Ovariums* 2, smooth and glossy. *Styles* 2, bearded with long white hairs, and terminated by small black points, crowned by a 5-lobed fleshy *Stigma*.

Our drawing of this beautiful and rare species, was taken from a fine specimen sent us from the collection of the late Robert Barclay, Esq. of Bury-hill, in July last, who received it through Mr. Nuttall, from North America: it was originally introduced to this country in the year 1732, where it was cultivated in the garden of Dr. James Sherard, at Eltham, in Kent: but it has probably been frequently lost since that time: in Mr. Barclay's garden it was cultivated in peat soil; in which the greater part of the genus succeed better than in any other: Pursh mentions it as growing in wet meadows, on the edges of woods and ditches, from New England to Virginia, flowering in July and August; it attains the height of four or five feet, growing erect and stout; and may be increased by dividing at the root.

For the derivation of the generic name, see folio 18, series the second.



1. Calyx, showing its pubescent segments. 2. The rotate Corolla, showing its 5 segments. 3. The stameneous Crown, showing the 5 subulate horns, that curve inwards. 4. The 5 Stamens, showing their winged sides. 5. The two Styles, clothed by a membranous covering, crowned by a large 5-lobed Stigma. 6. The same divested of the covering, showing the 2 Ovariums, with the hairy Styles, connected by the Stigma.



Prunella alba

Pub. by J. B. G. & Co. London 1831

RUBUS nutkanus.*Nootka Sound Raspberry.**Linnean Class and Order.* ICOSANDRIA POLYGYNIA.*Natural Order.* ROSACEÆ. *DC. prodr. 2. p. 525.*

Subordo II. POTENTILLÆ. *Juss. gen. 337.*—*Calyx* 5-fidus (rariùs 4-fidus aut pluri-divisus,) per æstivationem valvatus, sæpè extùs bracteolas lobulose exteriores lobis alternos gerens. *Petala* tot quot calycis lobi veri et iis alterna. *Stamina* numerosa, rariùs 5 et tunc lobis calycis opposita, apice tubi calycini expansi inserta. *Carpella* numerosa, rariùs pauca congesta, toro inserta, inter se et à calyce libera, et latere prope apicem styli-fera. *Styli* introrsum sulco-notati in stigma obliquum expansi. *Akenia* uniovulata omninò libera, exsucca aut baccata. *Semen* solitarium erectum aut inversum, exalbuminosum. *Embryo* rectus, cotyledonibus planiusculis.—*Herbæ aut frutices; foliis sæpius compositis; stipulis 2 lateraliter petiolo adnatis.* *DC. prodr. 2. p. 549.*

RUBUS. *Calyx* fundo planiusculus 5-fidus nudus. *Petala* 5 et *Stamina* numerosa calyci inserta. *Carpella* plurima in toro manifestè protuberante non carnosio capitata, stylo sublaterali superata, in drupellas carnosas conversa. *Semen* inversum.—*Frutices rarius Herbæ perennes.* *Caules biennes, sæpè radicanter, nunc inermes, nunc sæpiùs aculeati.* *Folia petiolata nunc pinnata palmatave, pinnis sæpiùs petiolulatis, nunc simplicia lobata indivisave.* *Fructus edulis.* *DC. prodr. 2. p. 556.*

§ III. *Foliis simplicibus lobatis sed non pinnatis nec palmatis.*

R. nutkanus, caule fruticoso flexuoso inermi glutinoso, ramis subangulatis glabris rufis, foliis cordatis quinquelobis rugosis reticulato-venosis subpilosis glabriusculis inæqualiter argute dentatis: lobis divaricatis acutis, floribus subcorymbosis, laciniis calycinis ovatis glabriusculis glandulosis longè acuminatis corollam æquantibus.

Rubus nutkanus. *Moc. pl. Nuth. icon. ex DC. prodr. 2. p. 566. Swt. hort. brit. edit. 2. addend. p. 589. Botan. regist. t. 1368.*

Stems several from the same root, apparently biennial, clothed with a light brown smooth bark, flexuose, slightly angular, branching: *branches* surrounded at the base with several ovate, acute, thin scales, similar to bractes, which are densely clothed with a close-pressed silky down, and remain persistent when the flowers are expanded; they are closely imbricated over each other, the outer ones shortest, young branches green, angular, thinly clothed with reddish hairs, all tipped with little purple glands. *Leaves* cordate, 5-lobed, the upper ones sometimes only three-lobed, about as broad as long, rugged, reticulately veined, unequally but sharply toothed, appearing smooth, but thinly clothed with hairs on both sides, of a bright green colour: lobes acute, spreading, the terminal one longest. *Petioles* nearly cylindrical, or slightly flattened on the upper side, thickened a

little at the base. *Stipules* 2, joined to the petioles a little above the base: lower ones broadly lanceolate, acute: the upper ones narrower. *Flowers* paper-white, in a sort of panicled corymbus, each of the branches of it 2 to 4-flowered. *Bractes* variable in size, ovate or lanceolate, acute, clothed with glandular hairs. *Peduncles* cylindrical, thickened a little below the calyx, glutinous, and covered with short reddish hairs, tipped with purple glands. *Calyx* 5-cleft; the segments spreading, ovate, terminated in a long slender point, clothed with little purple glands, about the length of the petals, woolly at the margins on the inside. *Petals* 5, broadly oval, rounded, imbricate about half way up, tapering to the base, of a thin texture, somewhat crumpled, and veined with numerous veins at the back, attached to the calyx. *Stamens* numerous, also inserted in the calyx, of unequal lengths, spreading: *filaments* smooth, slender. *Carpella* numerous, imbedded in a fleshy berry. *Ovarium* woolly. *Style* smooth, terminated by a little beak-like *Stigma*, pointing to one side.

This pretty species of Raspberry has been lately introduced to this country from Nootka Sound, and will be a valuable plant for growing in wilderness quarters, where it succeeds well under the shade of trees, as we are informed by Mr. J. R. Gowen, who was so kind as to send us the specimens from the collection of the Earl of Carnarvon, where the plants were raised from seed collected by Dr. Richardson, in Captain Franklin's expedition: we received the specimens in May last, and should have published it before, but waited in hopes of procuring some fruit to add to the drawing; but, probably, owing to the wet Summer, no fruit has been produced. Mr. Gowen informs us that its foliage is ornamental, the leaves when full grown very large, and its habit more compact than that of *R. odoratus*. It is a very abundant bloomer, and continues in flower a considerable time: it succeeds well in the common garden soil, and may be increased readily by dividing at the root. We are certain that this is the *R. nutkanus* of M. De Candolle; as we have seen specimens of it in Mr. Lambert's Herbarium, collected by Sesse and Mocinno.

The generic name is derived from the Celtic (*Rub.*) red, from the redness of the berries of many of the species.



1. Calyx. 2. Stamens of various lengths, that are inserted in the calyx. 3. The head of the Carpella, all terminated by little beaked Stigmas.



I. Winitz. del.

Pub. by J. St. John 169/Recd. by Feb 1882.

Bot.

ANISANTHUS splendens.

Splendid Anisanthus.

Linnean Class and Order. TRIANDRIA MONOGYNIA.

Natural Order. IRIDEÆ. Brown prodr. 1. p. 302.

ANISANTHUS. *Spatha* bivalvis: valvulis lanceolatis acuminatis. *Perianthium* corollaceum, tubulosum, unilabiatum: limbo inæquali, sex-partito, ringente: lacinia suprema longissima cochleariformi, lateralibus sursum flexis, tria infima minima: tubo basi gracili medio triangulari-gibboso. *Stamina* 3, adscendentia. *Stigmata* 3, patentia, cuneato-ligularia, integra, apice dilatata. *Capsula* triangulari-oblonga, trivalvis. *Semina* numerosa, biserialia, alato-paleacea, cumulata.—*Herbæ subpedales v. subtripedales.* Bulbo tuber ovato-rotundum, rigide contextum. Folia collateralia, plura, linearigladiata, nervosa. Caulis teres aut subangulosus. Flores pulcherrimi, coccinei.

A. splendens, scapo simplici erecto, foliis ensiformi-linearibus acutis glabris nervosis, floribus distichis; lacinia suprema galeata supra canaliculata: lateralibus adscendentibus: infima minima, spathis subæqualibus.
Anisanthus splendens. *Swt. hort. brit. edit. 2. p. 500.*

Bulb tuber about the size of a large hazel nut, clothed with a hard dark brown shell. *Stem* from 2 to 3 feet high, purple at the base. *Leaves* erect, long, linear, or linearly ensiform, acute, smooth, strongly 2 or 3 nerved, with other smaller nerves intermixed, oblique at the base. *Scape* simple, leafy, nearly cylindrical, and covered with a white glaucous powder, which easily rubs off. *Spike* distichous, many-flowered, the flowers spreading out on each side. *Spathe* 2-valved; valves about equal in length, lanceolate, acute, glaucous, reaching to the bottom of the limb. *Perianthium* corollaceum, tubular, 1-lipped: tube slender at the base, triangularly gibbous about the middle: limb 6-parted, the upper segment spoon-shaped, with a long unguis, rounded at the point, and channelled above, leaning forward like a helmet, of a bright scarlet: side ones also unguiculate, spreading and ascending, the unguis membranaceously margined, from the bend ovate, blunt, also of a bright scarlet: 3 lower ones small, of a yellowish green, the side ones very small, lanceolate, acute, rigid, the points bent inwards: lower one broadly spatulate, the rounded point reflexed, and sometimes tipped with scarlet. *Stamens* 3, ascending, inserted in the middle of the gibbous part of the tube: *filaments* smooth, attached to the middle of the back of the anthers: *anthers* slightly sagittate at the base, 2-celled, the cells straight but distinct; *pollen* golden yellow, stringy. *Ovarium* oblong, triangular. *Style* smooth, about the length of the stamens. *Stigmas* 3, spreading, dilated at the points, and slightly fimbriate. *Seeds* numerous, winged.

This beautiful and splendid bulb is one of those that was introduced from the Cape of Good Hope by Mr. Synnot in 1825, and was purchased of him by Mr. Colvill, in whose Nursery, in the King's-road, Chelsea, our drawing was made: the bulbs flowered the following Spring, in March and April, and had attained the height of from two to three feet, and the spike of flowers was nearly a foot in length, so that our figure cannot do it justice; but its grandeur may be supposed: it differs from *A. Cunõnius*, in the much greater breadth of its leaves, in their different form, and more nerves; in the flowers being all distichous, instead of secund; the nearly equal length of the valves of the spathe, which are very unequal in *A. Cunõnius*; in the upper segment of the flower being channelled on the upper side, instead of convex; also in its gigantic size.

We have separated the present genus from *Gladiolus* and *Antholyza*, as its habit and character is very different from both: the unequal segments of the flowers, and other characters, distinguish it sufficiently from *Gladiolus*; as do the flat winged seeds from *Antholyza*: there are, doubtless, still several genera that will require to be separated from the Cape *IRIDÆ*: the *G. alatus*, *namaquensis*, *algoensis*, *speciosus* of Thunberg, (which appears to be *G. psittacinus*, of the Botanical Magazine,) and *G. viperatus*; these, with probably other nondescript species, would form a distinct and very natural genus; as, we believe, would also the long-tubed *Tritoniæ*; the tube of itself would almost form a generic character.

The bulbs of the present species were potted in a mixture of nearly half light turfy loam, one fourth of fine white sand, and the rest peat, in which they thrived exceedingly well: they are now planted out in a pit, where all the Cape bulbs succeed best with a little covering in Winter: they will also succeed well in a warm border in the open ground, but will then require the covering of a mat, or some other covering, in frosty weather, or should there be a continuance of rain, but to be always exposed when the weather will permit: they may, by perseverance, be also made to remain dormant in Winter, and to be planted out in Spring, and will then require but little care. They may be increased by offsets from the bulbs, and by seeds.

The generic name is derived from *ανισος*, unequal, and *ανθος*, a flower, from the inequality of the segments of the flower.



1. Flower spread open to show the unequal segments, and the insertion of the 3 stamens. 2. Style terminated by the 3-cleft Stigma.



A. L. Mason del.

Pub. by: *Ringway 23* (March 1991) 1000. 1000.

Figure 1

ASCLEPIAS virgata.

Twiggy Swallow-wort.

Linnean Class and Order. PENTANDRIA DIGYNIA.

Natural Order. ASCLEPIADEÆ. *Brown in Wern. trans.* 1. p. 12.

ASCLEPIAS. Supra folio 18, series 2.

A. virgata, foliis oppositis breve petiolatis lineari-lanceolatis acutis : supra glabris nitidis : subtus nervis pubescentibus, caule erecto pubescente, umbellis plurifloris inter foliis, petiolis pedunculis pedicellis calycibusque pubescentibus.

Asclepias virgata. *La Gasc. gen. et spec. nov. aut minus cognit.* 1815. p. 14.
Balbis in catal. taurin. 1813. p. 14. *DC. catal. taur.* 1813. ex *R. S. Rœm. et Schult. syst.* 6. p. 72. *Swt. hort. brit. edit.* 2. p. 360.

Perennial, erect. *Stems* rather slender, erect, slightly pubescent, becoming smooth by age, somewhat branched : *branches* slender, pubescent. *Leaves* opposite, lanceolate, linearly lanceolate, or linear, acute, the longest in our specimens five inches in length, and the broadest half an inch in breadth, also tapering towards the base, of a glossy green, and smooth on the upper side, underneath penniveined, of a paler colour, the nerves pubescent : upper ones becoming gradually narrower than the lower ones. *Petioles* short, slightly pubescent, furrowed on the upper side, and rounded below. *Peduncles* produced from the stem, intermediate between the two leaves ; pubescent, lengthening after the expansion of the flowers. *Involucre* of numerous small slender bractes, that are three or four times shorter than the pedicles, subulate, acute, and pubescent. *Umbels* in our specimens from 16 to 24-flowered. *Pedicles* straight, erect, or spreading, about half an inch in length, of a purplish brown, pubescent. *Flowers* blush and white. *Calyx* deeply 5-parted, pubescent : segments broadly lanceolate, acute, pubescent, closely pressed to the corolla. *Corolla* deeply 5-parted : the segments spreading, narrowly ovate, scarcely acute, blush or pale purple. *Stamineous crown* of five erect, hollow, tubularly cucullate, white leaflets, each bearing a subulate horn

on the inside, which is about the length of the leaflets, the points sharp, and curved inwards over the stigmas. *Stamens* 5, close-pressed to the styles: *anthers* purple, bearing a membranaceous wing on each side. *Ovariums* 2, smooth, distinct, tapering upwards into Styles, about the length of the stamens, crowned and connected by a large, slightly 5-lobed, fleshy Stigma.

We have ascertained the present plant to be the *A. virgata* of La Gasca, from fine specimens received from him by A. B. Lambert, Esq., and now preserved in his Herbarium; and from the description in Rømer and Schultes Systema, we believe the *A. virgata* of Balbis to be the same species; he most probably received the seed from the Madrid Garden, under that name, as he was not certain of what country it was a native; whether the *A. angustifolia* of Schweigger is different or not, we are not certain, but that is described with the umbels terminal; the *A. linifolia* of Kunth also appears to be nearly related, as is the *A. parviflora* of the Hortus Kewensis. La Gasca mentions having received the seeds from D. Sesse from Mexico in 1804.

Our drawing was taken from fine specimens, sent to us from the collection of the late Robert Barclay, Esq. of Bury-hill, near Dorking, where the plants were raised from seeds received from Mexico; and we are informed by Mr. D. Cameron, the Gardener, that it is quite hardy, having endured the hard Winter of 1829-1830 in the open ground, but in a warm sheltered south border, without protection, where we saw it the beginning of last October, still in fine bloom; it is a very desirable plant for the Flower Garden, on account of its elegant growth, and abundant flowering, succeeding best in peat soil; but will also thrive well in a light rich soil in the garden; it may be increased by dividing at the root, or by seeds, which sometimes ripen.

For the derivation of the generic name, see folio 18, of the second series.



1. Calyx. 2. Corolla spread open, to show the 5 segments. 3. The 5 cucullate leaflets of the Stameneous crown, each bearing a subulate horn on the inside. 4. The 5 Stamens. 5. The 2 Ovariums, terminated by 2 slender Styles, which connects them to the 5-lobed fleshy Stigma; the Stigma removed, to show their distinction. 6. An unripe Capsule.



Fl. Ind. Ridgway 189. P. Ind. 189. March 1850.

LOBELIA decurrens.

Winged-stemmed Lobelia.

Class and Order. MONADELPHIA PENTANDRIA.

Natural Order. LOBELIACEÆ. *Juss. ann. mus.* 18. p. 1.

LOBELIA. *Calyx* sæpiissime ovario adnatus; limbo libero, quinque-partito. *Corolla* tubulosa; tubo integro aut dorso longitudinaliter fisso; limbo 5-partito, subbilabiato. *Stamina* 5; *antheræ* connata. *Stigma* bilobum aut indivisum. *Capsula* semisupera, bi-rarius trilocularis, apice loculicido-bivalvis. *Semina* creberrima.—*Herbæ*, frutices aut arbores, sæpius *lactescentia*. *Folia* alterna, integra aut laciniata, rarissime fistulosa. *Flores* terminales, spicati, aut axillares solitarii, *pedicellis* bibracteatis aut nudis. *Corollæ* albæ, cæruleæ aut rubræ. *Antheræ* sæpius barbatae. *Kth. synops.* v. 2. p. 339.

Sect. III. *Lobelia herbaceæ, erectæ aut procumbentes, floribus terminalibus, spicatis, rarius axillaribus solitariis, tubo corollæ dorso longitudinaliter fisso.*

L. decurrens, foliis ovato-lanceolatis decurrentibus confertis duplicato-serratis glabris, floribus axillaribus breviter pedunculatis, calycis villosi laciniis lanceolatis inciso-serratis, corollæ laciniis apice pilosis. *Spreng. syst.* 1. p. 712.

Lobelia decurrens. *Cavanill. Icon.* v. 6. p. 13. t. 521. *Pers. synops.* v. 2. p. 212. *Ræm. et Schult. syst.* v. 5. p. 42.

Perennial, herbaceous. *Stems* smooth, from 3 to 5 feet in height, thickly clothed with leaves, which are decurrent down the stem, and form broad sharply toothed wings. *Leaves* ovately-lanceolate, sessile, and decurrent, tapering to a sharp slender point, sharply and doubly serrated on both sides, generally bearing from two to four short teeth between each pair of long ones, smooth and of a glossy bright green on both sides, varying in length, the lower ones 5 inches or more in length, upper ones scarcely an inch: lower ones to a considerable distance up the stem an inch in breadth, the upper ones becoming gradually narrower. *Flowers* axillary, solitary, forming a leafy spike, of a pale purple. *Peduncles* short, villosely pubescent. *Bractes* 2, narrowly linear, tapering to a slender point, hairy and fringed, serrated with long distant teeth, attached to the peduncle near the base. *Calyx* hemispherical, clothed with short villous hairs; limb deeply divided into 5 segments,

which are narrowly lanceolate, tapering to a slender point, fringed and toothed with distant long sharp teeth. *Corolla* tubular, of a violet purple, about an inch and a half in length, the upper side split longitudinally to the base: the two segments of the upper lip linear, villous on the outside, bearded at the point: lower ones acute, hairy, spreading. *Stamens* 5, monadelphous: *filaments* united into a tube, hairy at the base, and producing a row of long reflexed hairs down the back: *anthers* bearded at the point. *Style* smooth. *Stigma* two-lobed, bearded underneath with stiff hairs.

For this most beautiful species of *Lobelia*, we are also indebted to the rich collection of the late Robert Barclay, Esq. of Bury-hill, where it was raised from seed, received from Chile in 1829; it flowered, for the first time, in his collection, in the Autumn of 1830; but not sufficiently fine to procure a figure from; but last Autumn it produced the fine specimen from which our drawing was made; there is already a good uncoloured figure of it in Cavanille's *Icones*: it having flowered many years since in the then famous Botanic Garden at Madrid. In Mr. Barclay's garden it was planted by the side of a wall, in a southern aspect, where we saw it still in fine bloom the beginning of last October, growing freely in the rich light soil of the garden.

In examining the specimen we found it to be of a deleterious quality; although none of the milky juice came about our hands, we found, by putting a finger to the tongue, it caused a very acrid taste; and by unthinkingly rubbing the eye, caused a very smarting pain; this was repeated some time afterwards to try the effect, which still continued till the hands were washed; the plant must therefore be grown in a situation where children or strangers may not accidentally get at it. Cuttings of it will doubtless root readily in a little heat, like the other species of this tribe; but it would be best to dry them a day or two before planting, to close the wound, otherwise they would be liable to rot, or damp off.

The genus was named in honour of M. Lobel, author of several works; the particular one, *Icones Plantarum*; he was Physician and Botanist to James the First, and died in London, in 1616.



1. Calyx, with the 2 bractes near the base of the footstalks. 2. Corolla spread open, showing the longitudinal divisions of the upper lip, and the 3-cleft lower segment. 3. The 5 connected Stamens, with the 2 anthers bearded at the points. 4. The pyramidal Ovarium, terminated by the smooth Style, and 2-lobed bearded Stigma.



A. Amich. Sol.

Publ. J. Biedig. 189. P. 189. 189. 189. 189.

W. Biedig.

CENTROCÁRPHA grandiflora.

Largest-flowered Centrocarcha.

Class & Order. SYNGENESIA POLYGAMIA FRUSTRANEA.

Natural Order. COMPOSITÆ. *Adanson fam. 2. p. 103.*

Subordo X. HELIANTHÆ. *Cassini in journ. de phys. tom. 76.*

p. 111.

CENTROCÁRPHA. *Involucrum* simplici v. duplici ordine polyphyllum, patens. *Receptaculum* conicum, paleaceum : paleis navicularibus, rigidis, sæpiùs acuminatis, pungentibus, deciduis. *Flosculi* radii ligulati, neutri ; *disci* hermaphroditi, infundibuliformes, 5-dentati : *tubo* pentagono : *fauce* supernè gradatim dilatata, basi attenuata. *Stigmata* mucronulata, hispidula, recurvata. *Achenia* 4-angula : *coronula* integrâ, brevissimâ, truncatâ, membranaceâ. — *Herbæ* (Amer. Boreal.) *scabræ, radice perenni*. *Folia alternâ, plerumque indivisa*. *Capitula solitaria*. *Radius aureus*. *Discus atropurpureus*. D. Don Mss.

C. grandiflora, caule elato 3-4-pedali subramoso : ramis angulatis hispidis, foliis petiolatis acutis basi attenuatis reticulato-venosis undique hirsutis : inferioribus ovatis septemnerviis crenato-dentatis : superioribus lanceolatis acutis scaberrimis obsolete crenatis, involucri foliolis brevissimis radio dorso tomentoso quintuplo brevioribus.

Rudbeckia nudicaulis. Nuttall Mss. nec aliorum.

Root perennial. *Stem* in our specimen, about 3 feet and a half in height, hispidly hairy, furrowed with numerous furrows, bearing only 3 branches, each of which were terminated by a large flower. *Leaves* variable, petioled, acute, attenuated towards the base, strongly nerved, reticulately veined, very rough, and rigid : lower ones ovate, acute, 7-nerved, and notched on both sides with broad shallow notches, in our specimen 8 inches long, and 4 broad : upper ones on shorter footstalks, lanceolate, scarcely crenulate, much less ribbed, but very rough to the touch, the edges appearing serrulated with stiff bristly hairs. *Petioles* on the lower leaves from 6 to 8 inches and a half in length, channelled on the inner side, and rounded on the outer, much dilated at the base. *Peduncles* long and rigid, furrowed, clothed with short bristle-like hairs, that are more or less pressed towards the stem. *Flowers* terminal, very large, when fully expanded, nearly 6 inches across, bearing golden yellow rays, and a brownish purple disk. *Involucre* of numerous leaflets, very short, and loosely spreading, about 5 times shorter than the rays : the leaflets linear, acute, rigid, and clothed with short, rigid, impressed hairs. *Receptaculum* conical, chaffy, the chaff deciduous. *Rays* barren, numerous, very broad and long, and spreading round in an elegant manner, bifid at the point, or sometimes 3-toothed, densely clothed with woolly hairs at the back, and many-nerved, smooth on the upper side. *Florets of the disk* tubular, 5-angular, 5-toothed, pubescent, purple, the teeth bluntish, spreading, or somewhat reflexed, each floret partly inclosed in one of the scales of the chaffy receptacle. *Chaffy Scales* rigid, spathulate, pubescent, keeled at the back, concave, the hollow spoon-like upper part fimbriate, acute, nearly as long as the florets. *Stamens* 5 ; *filaments* distinct,

smooth, inserted into the base of the anthers : *anthers* connected into a tube, but distinct at the points, each bearing 2 small teeth at the base, 1 on each side : *pollen* yellow. *Style* smooth. *Stigma* deeply 2-cleft, dark purple, the segments clubbed at the ends, spreading. *Achenia* compressed, 4-angled, crowned by a slightly and bluntly 4-angled short fleshy crown.

Our drawing of this splendid plant, was taken from a fine specimen sent to us in September last, from the collection of the late Robert Barclay, Esq., of Bury Hill : it had been received the same Spring from Mr. Nuttall, who had discovered it in North America, and sent it under the name of *Rudbeckia nudicaulis*, of Persoon ; that it, however, is not. The present genus has been proposed by Mr. D. Don, and comprises a very natural group, *RUDBECKIA* being limited to the divided-leaved and cylindrical crowned species : several of the species of the present genus have been confused : amongst the others, *C. triloba* of Linnæus, and *C. spathulata* of Michaux ; this we hope to be in part enabled to rectify. To Mr. D. Don we are much obliged for the following descriptions and synonyms.

C. triloba, canescenti-pilosissima, foliis spathulato-oblongis acutis subserratis ; inferioribus trilobis, involucro incumbente radiis subæquante, paleis acuminato-aristatis, caule erecto. *D. Don Mss.*

Rudbeckia triloba, *Linn. spec. pl.* 1280. (confirmante exemplario archetypo in Mus. Soc. Linn.)

Rudbeckia triloba β. *Mich. flor. Bor. Amer.* 2. p. 144.

Rudbeckia subtomentosa. *Pursh flor. Amer. sept.* 2. p. 575.

C. aristata, pilosa, foliis lanceolatis acuminatis subserratis, inferioribus trilobis, involucro reflexo-patente radiis ferè duplò breviorè, paleis acuminato-aristatis, caule diffusa.

Rudbeckia aristata. *Solander Mss. in Mus. Banks. Pursh. fl. amer. sept.* 2. p. 574.

Rudbeckia triloba. α. *Mich. fl. Bor. Amer.* 2. p. 144.

Rudbeckia triloba. *Pursh. l. c.* 2. p. 575. *Ker in Bot. reg.* t. 525.

Rudbeckia foliis trilobis. *Gron. Virg.* 180. ed. alt. p. 180.

Chrysanthemum etc. *Pluk. alm.* 100. t. 22. f. 2.

“ The whole plant is much less hairy than the preceding ; the stems are taller, and diffusely branched, rounded, and of a dark red colour ; the older ones becoming frequently nearly smooth. The leaves are narrower, more pointed, and often entire, particularly the uppermost ; the radical ones are more deeply divided. The capitula are solitary, and on longer purplish peduncles. The rays are longer, narrower, and of a deeper orange yellow, nearly twice the length of the involucre, which is furnished at the base with a solitary bractea : in both species they are generally 8 in number. The paleæ are much more deeply coloured, almost black, while in *triloba* they are of a chestnut colour.” *D. Don Mss.*

To this genus belongs *Rudbeckia hirta*, *fulgida*, *spathulata*, *chrysomela*, *gracilis*, *discolor*, and probably *radula* ; the *R. spathulata*, of Nuttall, appears to be nearer related to *R. amplexifolia*.

The generic name is derived from *κνίφος*, sharp bristles, and *χαῖφος*, chaff, from the sharp bristles terminating the chaff.

1. The conical receptacle, with some of the leaflets of the Involucre at the base, the greater part of the chaff taken off, but a few of the scales left remaining to show their form and colour. 2. A Floret of the disk, to show its pubescence, and the scale of chaff at the base of the Achenia. 3. Floret spread open. 4. The 5 Stamens spread open to show the distinct filaments, and connected anthers. 5. Achenia crowned by a short fleshy crown, terminated by the Style and 2-cleft Stigma.



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J. D. Smith, del. F. & S. 1870

CUMMINGIA trimaculata.

Three-spotted Cummingia.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. ASPHODELEÆ. *Brown prodr.* 1. p. 274.

CUMMINGIA. *Perianthium* semisuperum! campanulatum, 6-fidum, deciduum. *Antheræ* basi emarginatâ filamentis brevissimis dilatatis insertæ, conniventes. *Ovarium* triloculare: *ovulis* indefinitis. *Stigma* punctum pruinosum. *Capsula* trilocularis loculicido-dehiscens: *loculis* oligospermis. —Herbæ (Chilenses) *elegantēs*. *Rhizoma bulbo-tuber rudimentis foliorum emarcidorum reticulato-fibrosis vestitum*. *Folia graminea, costâ prominulâ*. *Flores laxè paniculati, nutantes, cœrulei*. *Pedicelli filiformes, apice dilatato cum perianthio articulati*. *Bracteæ adpressæ, nervosæ*. *Capsula membranacea*. D. Don Mss.

C. trimaculata, limbo perianthii tubo longiore trimaculato. D. Don Mss.

Rhizoma bulbo-tuber subrotundum, collo elongato, ut cum caulis basi rudimentis foliorum emarcidorum reticulato-fibrosis, fulvescentibus, multiplici ordine vestitum. *Caulis* erectus, rigidulus, paniculatum-ramosus, teres, lævigatus, basin versus atque sub geniculis obsoletè angulatus, spithamæus v. dodrantalis. *Folia radicalia* recurvato-patentia, linearia, canaliculata, nervosa, glabra, lætè viridia, apicem versus marginibus involutis subulata, extremitate callosâ obtusâ, costâ validiusculâ utrinque elevatâ, orâ angustissimâ, cartilagineâ, integerrimâ; spithamæa et ultra, 2 lineas lata, nervis primariis 6, interjectis nonnullis obscurioribus; *caulina* plurimum breviora, basi dilatatâ vaginantia, apice elongato, subulato; *superiora et bracteæ* subsimilia, ovato-lanceolata, obtusè mucronulata, striato-nervosa, adpressæ, cucullata, membranacea, subhyalina. *Flores* pulcherrimi, laxè paniculati, nutantes. *Pedicelli* filiformes, lævissimi, continui, apice dilatato cum perianthio articulati. *Perianthium* cœruleum, monophyllum, campanulatum, basi circumscissâ deciduum, 10-nervium: nervis alternis dichotomis, intermediis simplicissimis, strictis: *limbo* 6-partito, patente, tubo ferè duplò longiore: *segmentis* duplici ordine dispositis; nervis lateralibus ramosis: *exterioribus* 3 oblongis, omnino glabris, immaculatis, tuberculo (e nervorum confluentiâ ortum ducenti) calloso apiculatis, *interioribus* alternantibus, obovatis, retusis, muticis, disco nudis, margine ciliis compressis obtusis elegantè fimbriatis, basi maculâ magnâ atropurpurea ornatis. *Stamina* 6, basi tubi perianthii inserta: *filamenta* dilatata, obcuneata, membranacea, brevissima, alba: *antheræ* luteæ, anticæ, biloculares in conum convergentes, basi emarginatâ insertæ, subsagittatæ, apice foramine apertæ: *loculis* parallelis bivalvibus, superne sensim attenuatis: *valvulis* introflexis, demùm longitudinaliter solutis; *exterioribus* longioribus, et in appendiculam membranaceum bidentatam cœrulescentem confluentibus, dentibus setaceis, recurvis: *raphe* angustissimâ: *ovarium* pedunculi apici dilatato semiimmersum! globosum, triloculare: *ovulis* pluribus. *Stylus* subulatus, albus, stamina superans. *Stigma* punctum, minutum, pruinosum. *Capsula* membranacea, trilocularis, loculicido-dehiscens: *loculus* oligospermis, apice paullò productis, subinde capsula leviter triloba: *valvis* medio septiferis, transversè nervosis, nervis

ramulosis, ad suturam demum solutam confluentibus. *Dissepimenta* membranacea, quasi simplicia, nec laminis distincta. *Semina* hinc convexa, inde plana, hilo lineari axi adnata : *testa* simplici, membranacea, cellulosa, atrofusca : *albumen* cartilagineo-carnosum, aqueo-pallidum. *Embryo* in regione umbilicali, obliquè erectus, teres, albus, supernè attenuatus, fere subulatus, albumine duplò brevior, radiculà crassissimà, obtusa, subbulbosà. *D. Don* Miss.

" For a knowledge of this elegant species of CUMMINGIA, we are indebted to Miss Oriana Georgiana Reinagle, who has already won our gratitude by the introduction of the beautiful *Tropæolum tricolorum* figured at tab. 250 of the first series of this work. The bulbs were collected in the vicinity of Valparaiso, in Chile, by Miss White, (now Mrs. Miller,) daughter of the British Vice Consul at that place, and by her forwarded, together with several other curious plants, and among them apparently a third species of Cummingia, to Miss Reinagle, who presented them to Mr. Anderson, of the Chelsea Botanic Garden, where our plant flowered in December last. Miss Reinagle informs us, that the native name is Paxero, or Paterita. In a collection of dried plants lately received by Mr. Lambert, from Mr. Thomas Bridges, now resident at Valparaiso, there are fine specimens of the present species, and also of another, which, it is very probable, will prove to be the same with the one from Miss Reinagle, that has not yet blossomed, and for which we propose the following name and character : *C. TENELLA, limbo perianthii tubo breviorè immaculato*. The flowers are not above half the size ; the fringe of the alternating segments is longer and finer : the anthers are pale blue, with the teeth of the appendage much shorter, and the lateral nerves of the segments of the perianth are almost simple, while in *C. trimaculata*, they are branched. Although the cells of the anther are solvent along the whole length of the suture, the pollen is almost wholly emitted by the aperture at the top, being forced upwards and thrown on the stigma by the passing of the anthers against the sides of the pistil : the membranous appendage formed by the elongation of the dorsal valves of the anther is admirably calculated to prevent the escape of the pollen, and the spreading teeth tend to the mutual support of these delicate appendages."

" I have already given, under *C. campanulata*, in the first series of this work, tab. 257, my reasons for separating this genus from Conanthera, which is distinguished precisely as Scilla is from Hyacinthus by its deeply divided perianthium. It would seem there are many species of both genera in Chile ; and Dr. Bertero hints at the probable necessity in keeping them distinct. In Botany, no universal principle can be laid down in the establishing of groups or families, or even in characterising species, for what would be sufficient to constitute a genus in one family, might only be of specific importance in another ; so among the *Monocotyledoneæ*, where greater simplicity of structure is found, and where evidently more general similarity, and consequently closer affinity prevails, we find but few characters to enable us to limit genera and orders."

For the whole of the above account, we are indebted to Mr. David Don. The present species will require precisely the same sort of treatment as the other Chile and Mexican bulbs ; to be planted in a light sandy soil, and to be covered up in severe frost.

The genus was named in our last series, by Mr. D. Don, in compliment to Lady Gordon Cumming.



1. Part of the Corolla spread open, to show the veins. 2. The 5 Stamens. 3. The superior Ovarium, terminated by the Style and small Stigma.



L. simulat.

Dir. by J. Haidell. 1851

Haidell.

ORNITHOGALUM corymbosum.

Corymb-flowered Star of Bethlehem.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. ASPHODELEÆ. Brown prodr. 1. p. 274.

ORNITHOGALUM. Supra folio 42, series 2.

O. corymbosum, scapo tereti, corymbo multifloro, foliolis perianthii exterioribus magnis interioribus subduplo majoribus, spathis lanceolatis apice longe attenuatis margine et basi membranaceis, foliis elongato-ligulatis acutis canaliculatis patentibus, ovarium atrum.

Ornithogalum corymbosum. Ruiz et Pav. flor. peruv. v. 3. p. 68. t. 300. Botan. regist. t. 907. Spreng. syst. veg. v. 2. p. 31. Schult. syst. 7. p. 512-513. Sot. Hort. brit. ed. 2. p. 526.

Bulb large, tunicate, clothed with brown shelly scales. *Leaves* several, spreading, very long, in our specimens from 18 to 21 inches in length, and when spread open 3 fourths of an inch to an inch and a half in breadth, ligulate, deeply channelled on the upperside; and rounded, but scarcely keeled below, attenuated to a long slender point, striated with numerous faint lines, of a bright glossy green on both sides. *Scape* smooth, cylindrical, in our specimen about 15 inches high, and nearly an inch in circumference. *Corymb* many flowered, 6-20, lengthened out to a raceme when several flowers are expanded. *Bractes*, or sheaths, which surround the peduncles, lanceolate, tapering to a long sharp point, white and membranaceous at the base and margins, the other part green, scarcely so long as the peduncles; lower ones in our specimens 2 inches in length. *Flowers* snow-white, very large and handsome, and delightfully fragrant, 3 inches across when expanded. *Peduncles* cylindrical, smooth and glossy; lower one rather more than 2 inches in length. *Leaflets of the Perianthium* 6, very variable in size, acute; outer ones broadly ovate, nearly twice the size of the inner ones; inner ones elliptically-lanceolate. *Stamens* 6, not half the length of the perianthium: *filaments* broadly dilated downwards, tapering to a slender point, which is inserted in the back of the anthers: *anthers* yellow, linear before bursting, composed of 2 distinct lobes. *Ovarium* nearly globular, of a

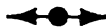
beautiful glossy blackness, slightly 3-furrowed. *Style* smooth, 3-sided, about equal with the filaments. *Stigma* slightly 3-lobed.

Our drawing of this handsome *Ornithogalum* was taken, last Autumn, from fine specimens sent from the collection of the late Robert Barclay, Esq., of Bury-hill, who had received it from Chile, where it was collected and sent home by Bridges, who went out there as Collector; it was planted in a border, in a southern aspect, where it grew very luxuriant, and produced the present specimen. In the beginning of October last, when we visited the above collection, we saw it again in flower, stronger and finer than our specimen. In the Peruvian and Chile collection of specimens, collected by the noted travellers Ruiz and Pavon, and now in the possession of A. B. Lambert, Esq., who obligingly allowed us to examine the native specimens in their collection, and where there were several fine specimens of the present plant in fine preservation, we observed several with 20 flowers in a corymb.

Bulbs of the same plant we saw, also, in flower, at the Apothecaries' Botanic Garden, at Chelsea, which Mr. Anderson had received from the same Lady that he received the beautiful *Tropæolum tricolorum*, the different species of *Cummingia*, and several other curious bulbs and seeds; see the figure 88 of our last number. As Mr. Anderson's were grown in pots, in the Greenhouse, they were not so fine as those in our specimen.

With the greater part of the bulbs from Chile, Peru, Buenos Ayres, and Mexico, the present one will succeed well in a warm border in the flower garden, planted about 6 inches deep, with the covering of a mat in severe frosty weather, but to be always exposed when the weather is mild; it may be increased by offsets from the root.

For the derivation of the generic name, see folio 42, of the present series.



1. One of the outer leaflets of the Perianthium. 2. One of the inner ones. 3. The 6 Stamens, showing the dilated filaments. 4. Ovarium, terminated by the Style and slightly 3-lobed Stigma.



C. latifolia Mill.

Pub. by J. Hodgkinson & Co. Bristol, April 1844.

Fl. Col.

AQUILEGIA sibirica.

Siberian Columbine.

Linnean Class and Order. POLYANDRIA PENTAGYNIA.

Natural Order. RANUNCULACEÆ. *DC. reg. veg. syst. 1. p. 127.*

Tribus IV. HELLEBOREÆ. *Æstivatio calycis et corollæ imbricata.*

Petala nunc o, nunc irregularia bilabiata nectarifera. Calyx petaloideus.

Carpella capsularia intus dehiscentia polysperma, DC. prodr. 1. p. 44.

AQUILEGIA. *Supra folio 55, series 2.*

A. sibirica, calcaribus apice involutis petalis multo longioribus, capsulis glaberrimis, caule subtrifloro aut paniculato multifloro subnudo glabro, sepalis elliptico-oblongis obtusis, foliis radicalibus biternatis; caulinis ternatis glabris; foliolis subtrilobis bipartitisve obtuse dentatis, petiolis sparse pilosis.

Aquilegia sibirica. Lam. dict. 1. p. 160. DC. syst. veg. 1. p. 336. Prodr. 1. p. 50. Deless. ic. select. 1. t. 47. p. 13. Spreng. syst. veg. 2. p. 630. Swt. hort. brit. p. 6. Edit. 2. p. 8.

Root perennial, herbaceous. *Leaves* smooth; those at the root twice ternate; the stem ones simply ternate: *leaflets* broad, deeply 3-lobed, or bifid with the segments lobed, toothed with large blunt teeth, of a pale glaucous colour on the underside, very much veined with numerous very slender branching veins. *Petioles* thinly clothed with slender hairs, dilated and bearing a hollow sheath at the base, which more or less clasps the stem, and is membranaceous at the margins, and keeled at the back. *Flower-stems* erect, smooth, slightly angular, naked or occasionally producing a leaf. *Flowers* frequently 3, or sometimes on a strong stem in a sort of branched panicle, as in our specimen, producing from 7 to 10 flowers, or perhaps occasionally more: at the base of the lower flowers is a sort of ternate leafy bracte, the leaflets of which are lanceolately linear, broadest at the base, and tapering towards the point, but scarcely acute. *Bractes* on the peduncles, lanceolate, acute. *Pedicles* quite smooth and glossy, rather long, thickest near the flower. *Flower* of a bright azure blue, white in the centre. *Calyx* of 5 sepals, deciduous, elliptically oblong or ovate, blunt at the ends, straight when first expanded, afterwards reflexed a little, bright azure blue, tipped slightly with white. *Petals* 5, slightly

two-lipped, and terminated below in a long hollow tubular spur, the points of which are rolled inwards, and terminated in a knob at the end : *spur* nearly twice the length of the petal : *outer-lip* erect, petal-like, wedge-shaped, slightly emarginate, of a cream-coloured white, *inner-lip* minute and inconspicuous. *Stamens* numerous, inserted in the receptacle, surrounding the ovariums, and connected in sets : *filaments* unequal in length, smooth, and attached to the base of the anthers : *pollen* pale yellow : surrounding the carpellas is a sheath composed of 10 flat, membranaceous barren filaments, at first all connected, but splitting as the carpellas advance in size. *Carpellas* 5, quite smooth, elongated. *Style* very slender, smooth. *Stigma* reflexed, minutely fimbriate.

For the opportunity afforded us of giving so fine a figure of this interesting plant, we are obliged to the Honourable William T. H. Fox Strangways, who raised it from seed, received from Dr. Fischer, Curator of the Royal Botanic Garden, at St. Petersburg : our specimen appears to be a very strong one, as the one described by Lamarck, and also the one figured in De Lessert's *Icones Selectæ*, has only two flowers, though apparently, in the latter figure, there is the rudiment of a third ; and one of our specimens had only one flower on it : it is a most beautiful plant, and its smooth carpella, and the knob at the end of the spur, readily distinguish it from all the other species : the strength of the present specimen was most probably owing to the rich soil in which it had been planted. It is said to be a native of the woods in Dahuria, so that in all probability it will be fond of growing in the mould formed from decayed leaves, which should be mixed with some rich sandy loam : it appears to seed freely, as there were some very perfect unripe carpella on some of our specimens.

For the derivation of the generic name, see folio 55, of the present series.



1. One of the Sepals of the Calyx. 2. The tubular Petal, attenuated downwards, bent inward at the base, and terminated in a thickened point. 3. The bundles of Stamens.
4. The 5 Carpellas, surrounded at the base by the barren chaffy filaments.



Hibiscus

Hib. by J. M. W. Turner, 1808 (London, 1808)

RHODODENDRON Russellianum.

Russell's Rhododendron.

Linnean Class & Order. PENT-DECANDRIA MONOGYNIA.

Natural Order. ERICEÆ. *D. Don prodr. flor. nepal. p. 148.*

Subordo III. RHODORACEÆ. *D. Don loc. cit. p. 152.*

RHODODENDRON. *Supra fol. 10, series 2.*

Sect. I. RHODODENDRA. *Corolla* campanulata aut subrotata. *Stamina* 10.—*Frutices* v. *Arbores*, sempervirentes aut rarissime subdeciduis; ramis glabris v. pulverulento-pubescentibus, raro hirsutis. *Folia* coriacea, oblonga, ovata, v. elliptica, glabra aut subtus subtomentosa. *Flores* corymbosi, speciosi, coccinei, rosei, purpurei, lilacini, albi, aut lutei.

R. *Russellianum*, foliis oblongis coriaceis abrupte acutis penninerviis reticulato-venosis supra glabris subtus tenuiter tomentosis: junioribus villosis, umbellis congestis multifloris, bracteis ovatis mucronatis, calycibus brevissime quinquelobis, corolla campanulata patente.

Old Stem with a cracked rugged bark: *branches*, when young, densely clothed with short down, and surrounded with numerous scales; *old ones* naked, smooth, and glossy. *Scales* imbricate, closely pressed, downy, variable in size and shape, ovate: lower ones acute: middle ones obtuse, terminated by a brown tip: upper ones membranaceous, acuminate, attenuated at the base. *Leaves* of a thick leathery substance, 4 to 9 inches long, crowded, alternate, oblong, abruptly acute, rounded at the base, reticulately veined, a little hollow on the upper side; margins a little recurved, smooth and glossy: underneath strongly ribbed, penninerved, densely clothed with short down: *young leaves* densely tomentose on both sides. *Petioles* about an inch long, stout, slightly furrowed on the upper side, and rounded below, densely tomentose when young: but becoming smooth by age. *Umbel* terminal, many-flowered, in a close crowded head, bracteate. *Bractes* closely imbricate before the flowers expansion, ovate, shortly acuminate, concave on the upper side, silky and fringed. *Flowers* of a bright rosy red, approaching to crimson, bell-shaped, deeply 5-lobed. *Pedicles* about an inch long, downy. *Calyx* very small, very shortly

or obsoletely 5-lobed, pubescent. *Corolla* campanulate, 5-angular, deeply 5-lobed, containing a hollow nectariferous pore, filled with honey, on the upper side at the base : lobes wedge-shaped, emarginate, crenulate, very much undulate, spreading. *Stamens* 10, of unequal length, ascending ; upper ones shortest : *filaments* flesh-coloured, smooth and glossy : *anthers* two-lobed, attached to the back of the filaments : bursting at the points for the exclusion of the pollen : *pollen* white, stringy. *Ovarium* villosely hairy, 8-angular, in our specimen. *Style* smooth and glossy, point ascending. *Stigma* capitate, slightly and irregularly lobulate; dark purple.

Our drawing of this curious and beautiful hybrid plant, was taken from a plant in full bloom, at the latter end of January last ; it had been brought forward by being placed in artificial heat ; the first flowers were not of so deep and fine a colour, but the plant was removed to an airy part of the Greenhouse, and the later heads of flowers became a much finer colour ; it is probable it will still become finer, when grown in the open air.

The seeds from which the present plants were raised, were procured from *R. catawbiense*, that had been fertilized by the pollen of *R. arboreum* : the habit and foliage of the present plant partakes much more of *R. catawbiense* than of the other : the flowers nearly equally between both, but deficient in the spots : the ovary in the flowers we dissected was 8-angular, partaking nearly equally of both species.

That the present plant is perfectly hardy, there can be no doubt, Mr. Russell having had many of them out the two last winters ; they require to be grown in peat soil, and will doubtless be rapid growers ; we see no abortion whatever either in the ovary, stigma, or stamens, so that there can be no doubt but it would produce perfect seeds.

Our drawing was made from a plant at the Nursery of Mr. W. Russell, at Battersea, who has had great success in raising many fine and curious hybrid plants.



1. The shortly 5-lobed Calyx. 2. The 8-angular Ovary spread open to show the 8 angles ; terminated by the Style, and the purple capitate Stigma, that is slightly and irregularly lobulate.



Narcissus

Bobbie Livingston, 102 E. 10th St., April 1933

Wm.

NARCISSUS Cypri.

Cyprus Narcissus.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆ. *Brown prodr.* 1. p. 296.

Sect. I. *Radix* bulbosa. *Flores* spathacei, umbellati, raro solitarii.

NARCISSUS. *Spatha* monophylla, follicularis, latere dehiscens, 1-multiflora. *Perianthium* superum, petaloideum, tubulosum : *tubus* subcylindricus aut plus minusve angulatis : *limbo* sexpartito, patens, aut reflexo. *Corona* faucis campanulata v. cupularis, aut rotata ; integra, vel lobata, aut subdivisa. *Stamina* 6 tubo inserta, intra coronam, ipsâ breviora. *Antheræ* incumbentes. *Stylus* subtrigonus. *Stigma* trilobum v. trifidum.

Sect. VIII. **HERMIONE.** *Spatha* 3-multiflora. *Perianthii foliolis* in stellam patentes, coronâ parvâ caliciformi 3-5-plo longiores. *Tubus* gracilis angulato-cylindricus corollæ laciniis longior, viridis. *Filamenta* toto tubo adnata apice solum semilineam libera ; tria tubo longe breviora, tria ejus longitudine. *Antheræ* parvulæ trigona-ovatæ erectæ, tres tubo incluse, tres eum semisuperantes. *Stylus* rectus inclusus. *Stigma* plus minus trilobato-trifidum, lobis rotundatis. *Haworth. Narciss. Revis. in Suppl. plant. succ.* p. 137.

Tribus II. **TAZZETTA.** *Folia* plana elevato-striata glauca v. glaucescentia. *Scapi* elevato-striati multiflori. *Tubus* angulato-cylindricus, elongatus. *Corona* cyathiformis v. cupularis aut rotatis, integra aut sublobata.

N. Cypri, scapo subquadrifloro gracili, foliolis perianthii obovatis mucronatis subimbricantibus semireflexis corona cupulari luteâ truncatâ sesquidupo longioribus.

Hermione Cypri. *Haworth in Phil. Mag. N. S. VIII.* 133-4. *Phil. Mag. and Ann. March,* 1831.

β semiplena. Park. Parad. 65. f. 2.—Semi-double *Cyprus Narcissus.*

γ plena. Park. Parad. 65. f. 3. 4.—Double *Cyprus Narcissus.*

Bulb tunicate, clothed with brown, shelly scales. *Plant* about a foot in height. *Leaves* erect, lorate, about half an inch broad, and a foot in length ; upper side flat, blunt, pale green, scarcely glaucescent, strongly striated at the back, after flowering becoming longer, and obliquely bent. *Scape* slenderer than in many of its allied species, strongly striated, green, almost solid, particularly in the lower part, nearly cylindrical at the base, upwards becoming a little more and more compressed, and 2-edged : when in flower, about the height of the foliage, afterwards somewhat shorter, and the upper part hollow. *Spathe* membranaceous, bursting on one side, in our specimen bearing 4 flowers, erect, about the length of the shortest peduncles. *Peduncles* erect, unequal in length, 1 to 2 inches long, slender, acutely triangular, pale green, prominently striated. *Ovarium* (at the time of flowering) small, oblong, bluntly triangular, slightly striated, and of a

darker green. *Flowers* elegantly nodding, but never drooping. *Perianthium leaflets* obovate, or oblongly obovate, or somewhat elliptic, white, yellow at the base on the outside, (interior ones smallest, as in all others, and less mucronulate,) at first spreading, nearly horizontal, flat, or variously twisted a little, and slightly imbricated at the base, afterwards somewhat reflexed, and variously bent and twisted, a little longer than the tube, which is prismatic, pale green, and slender. *Crown* yellow, thick, firm, entire at the rim, or occasionally cracked with one somewhat regular fissure, a little broader than long. *Stamens* 6, placed in 2 different situations, and with the pollen, the same colour as the crown : 3 interior ones inserted considerably below the mouth, and the anthers included ; the 3 others placed at the end of the tube, and the anthers protruded. *Style* slender, white, equal with the crown. *Stigma* 3-parted, the segments small, flat, spreading, somewhat rounded, white.

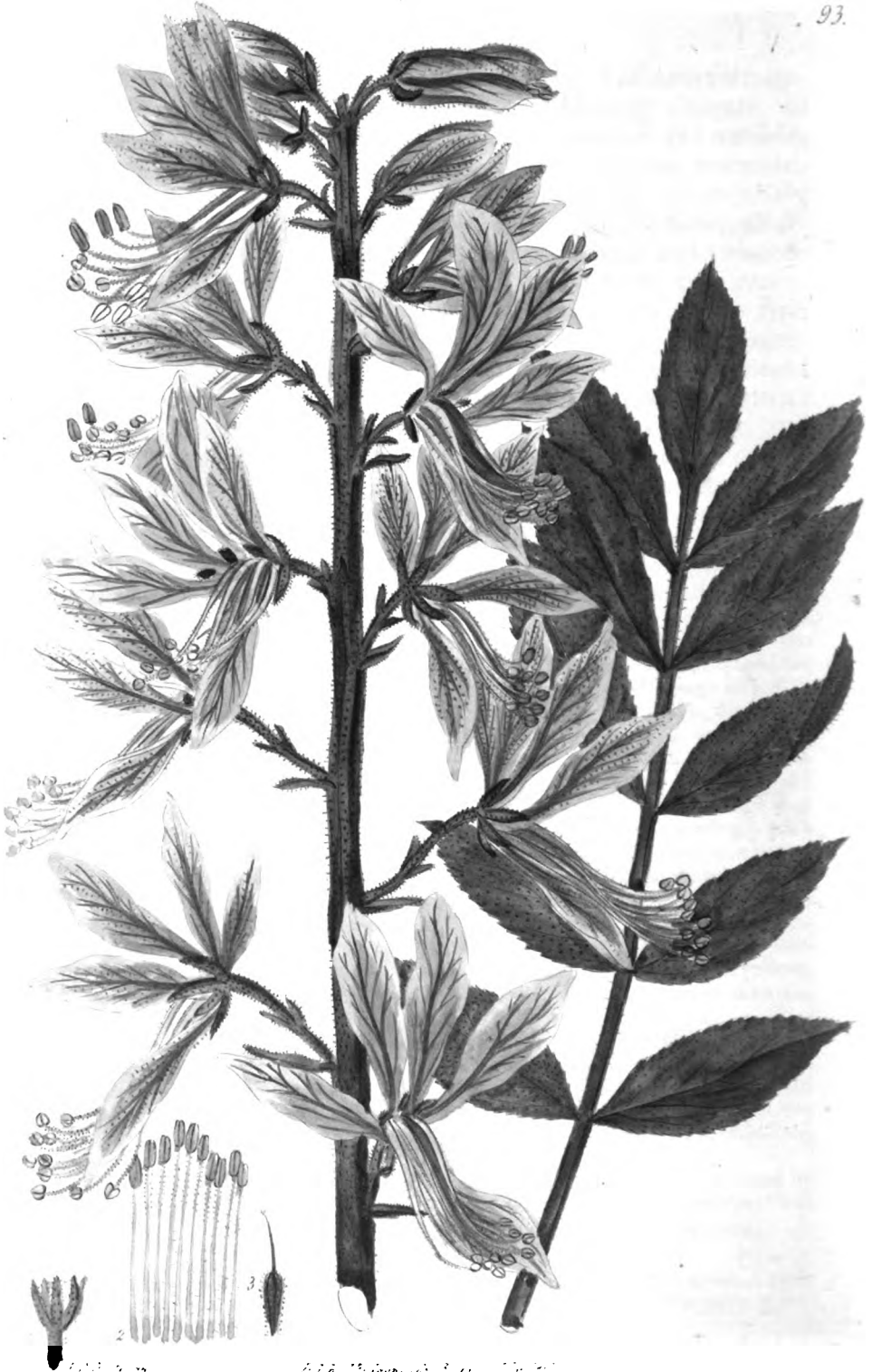
The origin of the double and semi-double varieties of the Cyprus Narcissus having always appeared doubtful, and having been generally supposed to be varieties of the Italian Narcissus, was first suspected by Mr. Haworth to be a different and distinct species, as mentioned in a paper by him, in the Philosophical Magazine and Annals, May 1, 1830, where he proposed for it the name of *Cypri*. This last Spring, we were lucky enough to find a plant of the single one in flower, at the Nursery of Mr. Colvill, in the King's Road, Chelsea, where we happened to see it growing amongst some double ones, and immediately recognized it to be the origin of them, in a perfect single state ; we immediately communicated it to Mr. Haworth, who agreed precisely with our ideas on the subject ; and, on comparing it, determined that it had not been taken up by any modern author. On comparing it with *N. Tazzetta*, of *Flora Græca*, we observed a strong similarity between them ; this we mentioned to Mr. Haworth, who, on comparing them, found them very similar, but still distinct, (the distinctions he has given in the paper of his, referred to,) from which it chiefly differs, in the bulb of this being three times as large, the scape at the base being nearly solid, not hollow, the flower-stalks acutely triangular, not roundish, the segments whiter, crown yellow, not orange, the segments 2 and a half times, not 3 times longer than the crown, and smooth, not plaited, as in *Flora Græca*.

The generic name is generally supposed to be derived from Narcissus, *Son of the river Cephissus, and the nymph Liriope*, a beautiful youth, who slighted the courtship of Echo, and other nymphs, and at last died for the love of himself, having seen his own face in a fountain, and was changed into a flower bearing his name. In another number, we will give a different derivation from Trew.

Sect. Hermione, the daughter of Menelaus, and Helena, betrothed by her grandfather to Orestes, yet, by her father, given to Pyrrhus ; but Orestes slew him in the temple of Apollo, and recovered his spouse.



1. Flower split open, to show the insertion of the 6 Stamens. 2. Style terminated with the deeply 3-parted Stigma. 3. Section of the Peduncle, to show the 3 sharp angles. 4. Section of the Scape, to show the small hole where cut.



Mimulus lewisii

Mimulus lewisii (Pursh) Nutt.

DICTAMNUS angustifolius.

Narrow-leaved Fraxinella.

Linnean Class and Order. DECANDRIA MONOGYNIA.

Natural Order. DIOSMEE. *R. Brown gen. rem. on the bot. of ter. aust. p. 13.*

Tribus I. DIOSMEE EUROPEANÆ. *Flores irregularis. Petala 5, distincta. Stamina numero dupla, libera, hypogyna. Discus 0. Ovaria 5, distincta, singula 4-ovulata. Styli totidem, superius coaliti. Seminum testa atra, nitida, tenuis. Embryo intrâ perispermum carnosum, album, modicè densum, concolor, radicula rectâ brevi, cotyledonibus ovatis juxta positis.*—*Herbæ. Folia alterna, impari-pinnata. Flores racemosi terminales. Diosmea Europæana bina, è regionibus Australibus: à cæteris Diosmeis distincta loculis plusquàm biovulatis, structurâque seminis simul ac flore irregulari.* Adr. de Jus. *Memoires sur les Rutaces.* p. 84.

DICTAMNUS. *Calyx brevis, 5-partitus, laciniis inæqualibus, deciduus. Petala 5, longiora, unguiculata, lanceolata, inæqualia, irregulariter patula (4 sursum geminatim opposita, quintum inferius declinatum.) Stamina 10 similiter declinata: filamenta subulato-filiformia, inæqualia, 5 petalis longiora: antheræ terminales. Ovaria 5, tuberculato-hispida, stipiti glabri imposita, basi inter se connata, 3-4-ovulata, ovulis axi medio adnexis. Styli 5, ex angulo interno ovariorum orti, mox in unum coaliti petalis brevior, declinatum, basi hispidulum, stigmate obtuso papilloso terminatum. Fructus stipitatus, 5-capsularis, capsulis verticillatis, inter se basi connatis, 2-3-spermis.*—*Herbæ graveolentes. Folia alterna, impari-pinnata, 4-8-juga; foliolis serrulatis, pellucido-punctatis; petiolis inter juga sæpè subulatis. Flores in summis ramis racemosim dispositi; racemis infrâ compositis, apice simplicibus; pedunculis bracteatis; pedicellis basi medioque bracteolatis; speciosi, albi aut purpurascens. Ramuli, pedunculi, pedicelli, bractæ, pars calycis petalorumque exterior et superior filamentorum, ovaria et fructus glandulis crebris, subtipitatis quasi hispida.* Adr. de Juss. *mem. sur le ruta.* p. 84-85.

D. angustifolius, racemis simplicibus, laciniis calycis subæqualibus, foliolis oblongo-lanceolatis acutis serrulatis basi inæqualibus, petiolis alato-marginatis.

Dictamnus angustifolius. *G. Don Mart. Mill. dict. ed. nov. ined.*

Perennial. *Stems* several from the same root, erect, somewhat flexuose, angular, slightly hairy, the upper part covered with small dark-coloured glands. *Leaves* alternate, pinnate, terminated by an odd leaflet: leaflets from 4 to 6 pair, distant, opposite or sometimes alternate, almost sessile, or on very short footstalks; the terminal one on a longer one, oblongly or broadly lanceolate, terminated in a sharp point, unequal at the base, which is slightly attenuated, but rather rounded, serrulated with numerous short sharp teeth at the margins, dotted with numerous small dots, smooth and glossy on the upper side, underneath penninerved, and clothed

with soft weak hairs, particularly on the nerves. *Petioles* long and rather slender, a little thickened at the base, and purplish in the axils on the upper side, slightly winged at the margins, nearly smooth, but clothed with a few scattered hairs. *Raceme* many-flowered, terminal, simple, not branched; the stem purplish, and covered with innumerable purple glands, as are the peduncles, bractes, calyx, and the backs of the petals. *Bractes* 3, linear, acute, one at the base of the peduncles, and 2 about half way up them, the one at the base longest. *Peduncles* short, thickened a little under the calyx. *Calyx* short, 5-parted; the segments scarcely unequal in size, linear, acute. *Petals* 5, oblong or oblongly lanceolate, acute, with a long slender unguis, varying but little in size, the four upper ones placed in pairs opposite to each other, the lower one pointing straight downwards, of a pale lilac, marked with purple veins. *Stamens* 10, unequal in length: *filaments* declining, their points ascending, attached to the base of the anthers, hairy, purple, near the point clothed with glands: *anthers* oblongly ovate before bursting, of a pale brown: *pollen* bright azure blue. *Ovarium* consisting of 5 capsules, connected from the base, hairy and glandular. *Style* purplish, ascending at the point, shorter than the stamens, smooth and glossy. *Stigma* terminated in a blunt papillose point.

The present species essentially differs from *D. Fraxinella* and *D. albus*, in the segments of its calyx being nearly equal, and in which it also disagrees with the generic character of *A. Jussieu*: that part of which we have omitted in our description.

Our drawing was taken from a plant, growing in the open border of the Apothecaries' Company's Garden at Chelsea, last Summer. Mr. Anderson raised it from seed, in 1821, received from Dr. Fischer; it is, we believe, a native of Siberia: it succeeds well in the open borders of the Flower Garden, in a rich light soil, and may be increased by seeds.

According to Linnæus, the generic name is derived from *καταειν*, to bring down, or pull down, probably from its glutinous matter in catching flies; when rubbed, it emits a scent like lemon peel; and if a candle be held under it in a dark night, it emits a flame; the root is medicinal, and is said to be of great use, as an opiate and drastic.

1. Calyx. 2. The 10 Stamens, showing their unequal lengths, the filaments hairy downwards, and glandular upwards. 3. The 5 connected Ovariums, that are hairy and glandular, terminated by the smooth Style, and small papillose Stigma.



W. ...

MAHONIA diversifolia.

Different-leaved Mahonia.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. BERBERIDEÆ. DC. *syst. nat.* v. 2. p. 1.

MAHONIA. *Calyx* 6-sepalus, sepalis ordine duplici dispositis, exterioribus minoribus, extus squamulis 3 stipatus. *Petala* 6, intus eglandulosa, sed basi tamen nectarifera (ex Nutt.) *Stamina* 6, filamentis apice utrinque 1-dentatis. *Ovarium* ovato-globosum. *Stigma* sessile, orbiculatum. *Bacca* ovato-globosa, 3-9-sperma.—Frutices elegantes. Folia alterna, persistentia, nullo modo abortiva, sed composita, impari-pinnata; petiolo tereti ad jugum quodque articulado basi subdilatato; foliolis 2-7-jugis cum impari, subcoriaceis glabris, margine sinuato-dentatis: dentibus spinescentibus. Pedunculi ad apicem ramosum corymbosi, plus minusve conferti; flores breviter pedicellatos racemosos gerentes, ad basin squamis glumaceis plus minusve instructis; bracteolæ parvæ, persistentes ad basin pedicellorum. Flores flavî, valdè Berberidibus vulgaribus similes. DC. *reg. veg. syst. nat.* 1. p. 18-19.

M. diversifolia, foliis 2-4-jugis cum impari: jugo inferiore à petioli basi longè distante; foliolis oblongo-ovatis acutis penninerviis repando-dentatis: dentibus utrinque 9-20 spinosis, racemis terminalibus congestis brevibus aut axillaribus subsimplicibus elongatis.

Stems frutescent, erect, leafy, producing runners at the base in our plant, under the ground: the young shoots coming up at a distance from the plant. *Leaves* very variable, alternate, evergreen, of a glossy green on the upper side, and paler underneath. *Petioles* at the base partly clasping the stem, dilated at the base, and bearing a short spreading spine-like tooth on each side: about 7 inches long, rigid, becoming slender upwards, slightly furrowed on the upper side, and rounded below, pale purple, glossy, jointed at each pair of leaflets: *leaflets* from 2 to 4 pair, terminated by an odd one, oblongly ovate, acute, tapering to the point, and widening downwards: sessile, or nearly so, penninerved, reticulately veined, margin cartilaginous, teeth spinous, 6 to 20 on each side, repandly toothed, thin, but somewhat coriaceous, from 2 to 3 and a half inches in length, and 1 to 1 and a half in breadth: terminal one longest, on a long footstalk: *leaves* on the stem, very different from those near the flower: the leaflets of the former being more ovate, and oblique at the base, all but the terminal one, which is equal; the teeth are smaller, and much more numerous, the lower ones bearing 14 to 15 on each side, increasing in number on the upper ones, the terminal one bearing above 20 on each side: *the leaflets* near the flowers more oblong, scarcely unequal at the base, the teeth much larger and deeper, and each terminated by a spine 2 or 3 times longer and thicker; those on the lower ones with 6 to 8, on the terminal ones 9

on each side. *Scales* or *bractes* many, scariosely membranaceous, persistent, oblongly lanceolate, broad at the base, tapering to a point, and hardening to a brown glume. *Racemes* numerous, crowded, short, terminal, erect; others axillary, simple, or in threes, longer than the upper ones, many flowered; smooth, bracteate. *Bractes* short, ovate, sessile, concave on the upper side, smooth: *lower ones* alternate, rather distant, acute: *upper ones* crowded, obtuse. *Flowers* more or less crowded, of a bright yellow. *Pedicles* smooth, slender, more than double the length of the bractes. *Calyx* of 6 blunt sepals: the three outer ones smallest: three inner ones ovate, obtuse, tapering to the base. *Petals* 6, oblong, bifid at the ends, smaller than the inner sepals. *Stamens* 6, opposite to the petals: *filaments* flat, producing a tooth on each side: *anthers* with 2 distinct, spreading cells. *Ovarium* oblongly ovate, smooth. *Stigma* sessile, fleshy, flattened, orbicular.

Mr. Anderson, the Collector, in a late voyage to the Straits of Magellan, and to various other parts of South America, informs us that he collected the seeds of the present interesting plant in the neighbourhood of Monte Video; he is now returned from his toilsome expedition, and has brought with him a fine collection of specimens and seeds: many of the seeds are now coming up at the Clapton Nursery; amongst them a *Tacsonia*, a very fine species of *Alstroemeria*, and a stately species of *Calceolaria*, besides numerous other rare and valuable plants, and a great number of bulbs that have not yet flowered.

An alteration has lately taken place in the management of the above Nursery. Mr. Low, through the assistance of his friends, has been enabled to obtain a small share of the business, and the entire superintendence of the whole concern, after having lived there as foreman for the last eight years.

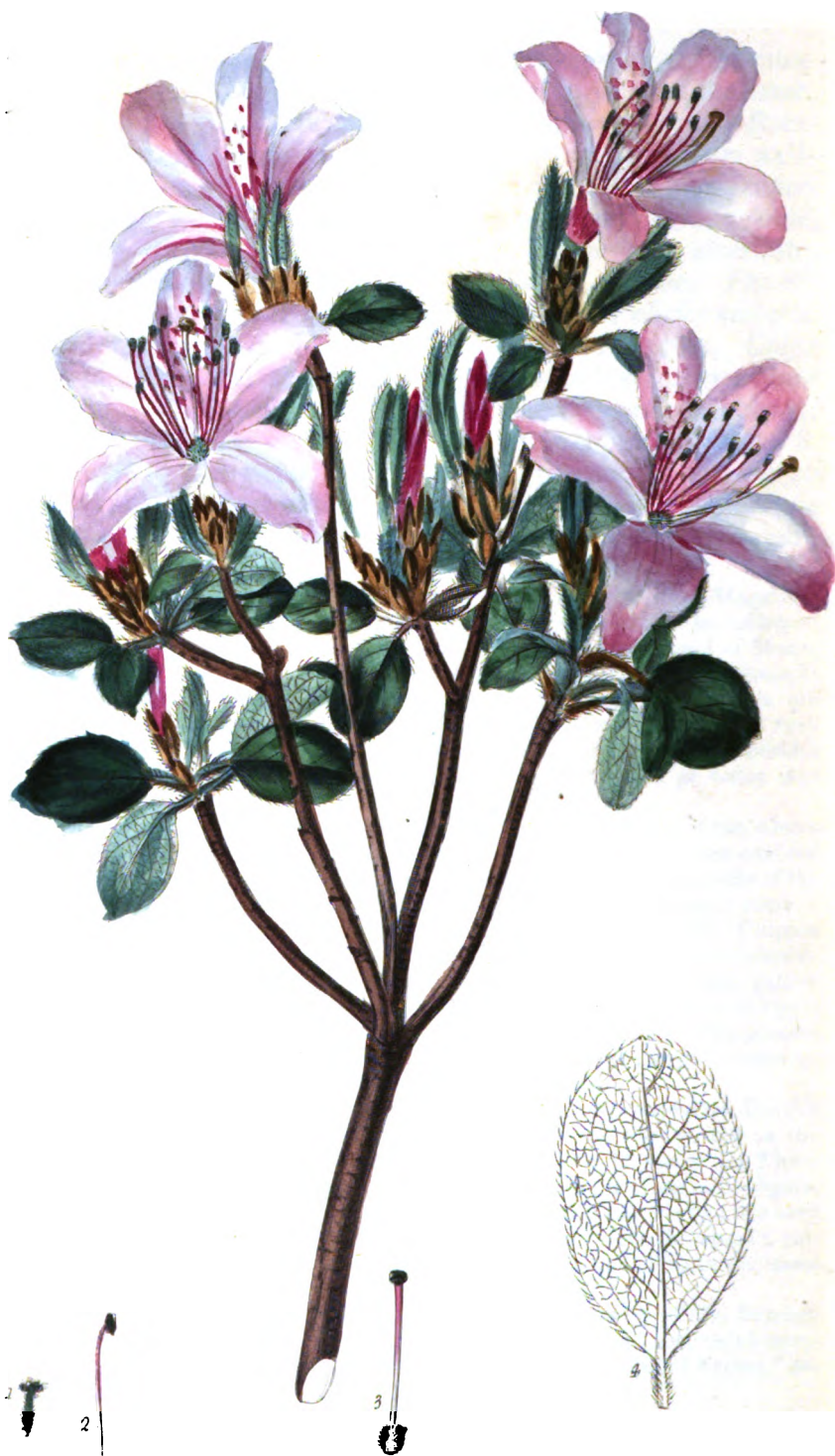
The sweet-fruited Barberry has also flowered lately at the Clapton Nursery, and will be published in our next Number; this will be a valuable addition to our gardens, as it makes a handsome bush, with large yellow hanging flowers, and the fruit is very good when ripe, and is famous for pyes and tarts, as well as making a fine appearance on the shrub. The present plant thrives well in a pot, or in the border, requiring but a slight protection in Winter, and increases by the suckers from its roots.

Two leaflets of certainly the same species as ours, are preserved in Pursh's Herbarium, now in the collection of A. B. Lambert, Esq. pasted on the same paper with the true *M. aquifolium*, figured by Pursh in his *Floræ Americæ Septentrionalis*; and one of those is added by the side of his figure. Mr. Lindley's observations on Pursh's *B. aquifolium* are wrong; the very specimen figured by Pursh is now in his Herbarium in Mr. Lambert's collection; the name of *B. repens*, published in the Botanical Register, must therefore be disused.

The generic name was given by Mr. Nuttall, in memory of Mr. Bernard M'Mahon, "whose ardent attachment to Botany, and successful introduction of useful and ornamental horticulture into the United States," entitles him to that honour.



1. The 3 outer Sepals on the pedicle. 2. The 3 inner petaliform ones. 3. The 6 Petals, each notched at the ends. 4. The 6 Stamens, with a tooth on each side of the filament.
5. Ovarium, terminated by the sessile, fleshy, orbicular Stigma.



J. D. Smith del.

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RHODODENDRON Farreræ.

Mrs. Farrer's Rhododendron.

Linnean Class & Order. PENT-DECANDRIA MONOGYNIA.

Natural Order. ERICEÆ. *D. Don prodr. flor. nepal. p. 148.*

Subordo III. RHODORACEÆ. *D. Don loc. cit. p. 152.*

RHODODENDRON. Supra folio 10, series 2.

Sect. II. BRACHYCALYX. *Calyx* minimus, brevissime 5-lobus. *Corolla* breve tubulosa, rotata, 5-partita: segmentis patentibus. *Stamina* 10, inæqualia suberecta aut adscendentia.—*Frutices erecti aut patentes ramosi, sempervirentes aut subdecidui: ramis virgatis, junioribus pilosis aut subtomentosis. Folia glabra, aut hirsuto-strigosa, reticulato-venosa. Flores terminales subsolitarii gemini.*

R. Farreræ, ramis rigidis: junioribus villosopilosis; adultis glabris, foliis coriaceis rigidis ovatis obtusis brevissime cartilagineo-mucronatis basi subattenuatis nervosis reticulato-venosis utrinque hirtis: margine subrecurvis ciliatis, petiolis basi dilatatis hirsutis, floribus terminalibus solitariis, calyce piloso brevissime quinquelobo, corolla patente inæqualiter quinqueloba; segmentis undulatis inferioribus multo majoribus.

Rhododendron Farreræ. Tate's Mus.

A handsome bushy dwarf Shrub. *Stems* hard and rigid, clothed with a smooth brown bark, producing numerous branches, which are slender, villosely hairy, and clothed with a ferruginous pubescence when young: becoming smooth by age. *Leaves* scattered, crowded at the upper part of the shoots, apparently subdeciduous, very rigid, and of a hard leathery texture, ovate, blunt, terminated by a very short horny point, attenuated a little towards the base, hairy on both sides, and fringed on the edges, the hairs procumbent, and of a purplish colour, strongly nerved underneath, and reticulately veined, margins slightly recurved: *young leaves* densely clothed with long hairs. *Petioles* short, dilated at the base, flat on the upper side and rounded below, clothed with rusty hairs. *Bractes* that surround the flowers and young shoots, short, ovate, acute, concave on the upper side, thickly clothed with rusty hairs. *Flowers* terminal, solitary, pale purple or lilac, elegantly spotted at the back with bright red spots. *Peduncles* short, nearly hid by the bractes, thickly clothed with hairs. *Calyx* very short, densely hairy, very shortly 5-lobed. *Corolla* spreading widely open, with a very short tube: 5-angular; divided into 5 undulate lobes: the two lower ones oblong, deepest divided, considerably the largest, and more spreading: three upper ones less divided, more undulate; the upper one smallest, elegantly spotted with bright red: the other two not so much spotted. *Stamens* 10, variable in length, the longest a little ascendant,

the shorter ones straight; the back one shortest: *filaments* slender, smooth, inserted in the back of the anthers: *anthers* 2-lobed, bursting at the points for the exclusion of the pollen: *pollen* white, stringy. *Ovarium* densely villous. *Style* smooth, about the length of the stamens, ascending. *Stigma* capitate, hollow in the centre, slightly lobed.

The present plant, with *Rhododendron dahuricum*, and most probably some of the Nepaul species, will form a very distinct section, which undoubtedly connects them with what has been called *Azalea indica*, but which, in fact, is scarcely a distinct section from this of *Rhododendron*, the only difference being in the long segments of the calyx in *A. indica*; this may frame them into a distinct section, which we have adopted under the name of TSUTSUSI, of Kæmpfer, a fine hybrid of which section has been raised, and is now in fine flower with Mr. W. Smith, of Coombe Wood Garden, from *A. ledifolia* of Hooker, and the old variety of *A. indica*; it is certainly the finest of that section that has ever been seen: another variety of *A. indica*, named *ignescens* by Mr. Tate, and which we also intend soon to publish, is very beautiful; it is of a finer colour, and a more abundant bloomer than the old variety, and is much more branched: the branches slender and diffuse: this Mr. Tate received from China.

The present beautiful and interesting species, which unites *Azalea* with *Rhododendron* without doubt, was introduced to this country in 1829, and was brought from China by Captain Farrer, in the Honourable East India Company's ship *Orwell*; and in compliment to Mrs. Farrer, resident at Blackheath, Mr. Tate proposed to name it: we were never more gratified than we were when examining this singular and interesting plant, which will be a great addition to the cultivators of rare plants.

The best soil for the present species is the greater part peat, with one-third sand; it will doubtless endure our Winters in the open air, as it is subdeciduous; the young leaves made since our drawing was taken, are three times or more the size of those on the plant when it was in flower; an outline of one is given, but there are numerous still larger ones now on the plant.

Our drawing was taken about the middle of February last, and it was still in flower towards the end of March.



1. The short 5-lobed villous Calyx. 2. One of the Stamens. 3. The villous Ovarium, terminated by the smooth Style, and hollow slightly lobed Stigma. 4. One of the large leaves, back view, to show its reticulation.

OXALIS Deppii.

Deppe's Wood-Sorrel.

Linnean Class & Order. PENT-DECANDRIA MONOGYNIA.

Natural Order. OXALIDEÆ. *DC. prodr.* 1. p. 689.

OXALIS. Supra folia 54, series 2.

Sect. V. CAPRINÆ. Acaules aut stipite nudo apice tantum folioso donata, pedunculis uni-bi-aut sæpius-multifloris, foliis radicalibus petiolatis plurifoliolatis sæpius trifoliolatis.

O. Deppii, acaulis, foliolis 4 magnis obcordatis pilosis subtus glaucescentibus; brevissime petiolulatis, petiolulis dense pilosis, umbellis multifloris, scapis pedicellisque laxè pilosis, stylis intermediis villosis, staminibus valde inæqualibus alternis pilosis duplo longioribus.

Oxalis Deppii. *Lodd. bot. cab. t.* 1500. *Swt. hort. brit. edit.* 2. p. 102.

Root a bulb-tuber, large, scaly, the scales composed of a thin chaffy substance, in our specimen about the size of a large Turnep Radish. *Leaves* several, produced in succession, spreading round in all directions, the petioles being bent downwards by their weight: *leaflets* four on each footstalk, each attached to a very short footstalk of its own, broadly obcordate, tapering to the base, some of them an inch and half long, and about the same in breadth in the broadest part, rather fleshy and succulent, and of a pleasant acid taste, hairy on both sides, particularly on the nerves underneath, of a bright green on the upper side, marked about half way up from the base with a brownish purple patch, a good part of which wears off as the leaves become old: underneath somewhat glaucous, feather-nerved, the veins extending from the midrib nearly to the edge of the leaf. *Leaflet footstalks* very short, densely clothed with long hairs, which from the four altogether forms a dense tuft. *Petioles* succulent, thickest below, gradually tapering upwards, very slightly flattened on the upper side, glossy, but thickly clothed with hairs, many of which are rubbed or washed off in time, declining downwards and more or less crooked, owing most probably to the great weight of the leaves. *Stipules* membranaceous, attached to the base of the petiole. *Peduncles* or *Scapes* numerous, from four to six appearing at a time, sometimes all of them more or less in flower, generally more than twice the length of the leaf-stalks, seldom upright, but more frequently ascending, at first thickly clothed with loose hairs, the greater part of which soon wear off, they are then smooth and of a glossy green. *Umbels*

many-flowered, from 10 to 15 in our specimen. *Bractes* variable in size, lanceolate, or linear; taper-pointed. *Pedicles* nodding, smooth and glossy, tinged with a reddish purple. *Calyx* of 5 sepals, erect, slightly connected at the base; *sepals* lanceolate, acute, bearded a little at the ends, concave inwards, of a membranaceous texture. *Petals* 5, of a coppery redness, slightly connected a little above the base, ligulate or approaching to spathulate, attenuated towards the base, which is of a pale greenish white and veined, the veins extending up through the petals. *Stamens* 10, connected at the base, very unequal in length, every other one being more than double the length of the others: *short ones* smooth; the long ones densely hairy, with an appendage at their back that extends the length of the short ones, above the appendage filiform, and densely hairy. *Ovarium* 5-angled. *Styles* 5, smooth at the base, densely hairy upwards, extending about half way between the short and long stamens. *Stigmas* capitate, two-lobed.

Our drawing of this most beautiful *Oxalis*, was taken from a plant in full flower, sent to us by the kindness of the late Robert Barclay, Esq. of Bury-hill: with us it flowered last year, from March to November, and if grown in a pot, and protected in the Greenhouse in Winter, it would most probably continue to flower all the Winter: *O. floribunda* flowered with us from March to Christmas; it had grown to a great size, and at last produced a hundred or more scapes of flowers at a time: when the cold weather set in, we potted it, and placed it in a room, setting it out in the garden whenever the weather was mild: it then produced several offsets, from which we have now many fine young plants: both species succeed well in a south border, with no other covering than a pot placed over them in severe weather, and a mat over the pot, the only protection necessary for those and numerous other half-hardy plants; the *O. Deppii*, from losing its leaves in Winter, may be taken up and kept in a warm dry place till Spring, and then planted; this is how we treated our plant.

For the derivation of the generic name, see folio 54, series 2. The specific name is in compliment to D. Deppe, a Mexican traveller, and Botanical Collector.



1. The scaly Bulb-tuber. 2. Calyx. 3. The 10 Stamens, very unequal in length, the 5 long ones being more than twice the length of the others, the 5 short ones smooth; the long ones densely hairy, with an appendage at their back that extends the length of the short ones. 4. Ovarium 5-angled, terminated by 5 hairy Styles, and 2-lobed Stigmas.



TULIPA repens.

Creeping-rooted Tulip.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. TULIPACEÆ. *Kth. synops.* 1. p. 292.

TULIPA. *Perianthium* 6-phyllum, petaloideum, campanulatum; foliola erecta aut subpatentia, non nectarifera. *Stamina* 6, basi foliorum inserta. *Antheræ* posticæ. *Stylus* 0. *Stigma* sessile, trilobum, cristatum, aut subcapitatum papillosum. *Capsula* oblonga, obtuse trigona. *Semina* numerosa, plana.—*Folia vaginantia, radicalia et caulina.* Scapus uniflorus, erectus aut subnutans, rarissime aphyllus.

Sectio II. Bulbus stolonifero-repente, perianthii segmentis acuminatis, exterioribus multo angustioribus et brevioribus, apice plus minusve pilosis.

T. repens, caule unifloro glabro bifoliato basi procumbente: foliis caulinis amplexicaulibus oblongo-linearibus acutis canaliculatis subtus carinatis: radicalibus longe petiolatis oblongo-lanceolatis basi et apice attenuatis, flore erecto, perianthii segmentis apice omnibus subbarbatis exterioribus duplo minoribus: 3 interioribus basi et supra dense ciliato-pilosis: exterioribus glabris, filamentis omnibus basi dense barbatis, stigmate breve trilobo, lobis glanduloso-pustulosis.

Tulipa repens. *Fisch. Mss. Svt. hort. brit. edit. 2. p. 536. excluding syn.* *T. Biebersteiniana. Schult. syst. v. 7. p. 582.*

Bulbs about the size of a Chestnut, clothed with a brown shelly bark, keeled on one side and ending in a sharp point, about the colour and consistence of a Chestnutshell, opening on one side so as to show the white bulb inside: producing numerous stolones, which run in all directions, and throw off fresh bulbs at intervals, extending several yards in three or four years, if planted in light ground. *Radicle leaves* none at the bottom of the flower-stem, in those that we examined when in flower, but one on those that produced no flower, which is also broader than those on the flower-stem, and produced on a long slender footstalk, proceeding from the inner side of the bulb from the base, only supported by the hard shell that covers it; from the base of the leaf proceeds the stolone for producing another bulb. *Root-leaf*, footstalk and all, in my specimen a foot, and half an inch in length, oblongly lanceolate, acute, tapering a long way towards the base, and longitudinally striate with numerous lines, somewhat glaucous; about three-fourths of an inch broad in the broadest part. *Petiole* slender, under and above the ground four inches in length. *Scape* bent, and procumbent at the base when in flower, but before flowering more or less erect: ascending, cylindrical, smooth, two-leaved, from the base of the root to the flower in my specimens a foot and four inches in length. *Leaves* clasping the stem, oblongly-linear, acute, channelled, keeled underneath, tapering to the point, and keeled at the back. *Flower* of a bright yellow, erect when

in flower, bell-shaped at first, afterwards spreading, with the points reflexed. *Perianthium* of 6 petal-like leaflets, all striated with innumerable lines, each bearing a stamen at the base: the three inner ones more than double the size of the outer ones, elliptic, tapering to a long acuminate point that is slightly bearded inside, also attenuated to the base; smooth on the inside, except at the very base, where it is a little bearded, strongly fringed with long soft white hairs from the base to a considerable way up, and the fringe extending in on each side, so that half the segment below is covered, strongly nerved with a green nerve running up the back: three outer ones lanceolate, tapering to a slender point that is very slightly bearded, smooth and not bearded at the base, a little tinged with green at the back. *Stamens* 6, variable in length, those attached to the long leaflets the longest: *filaments* densely bearded at the base, where they are thickest, tapering to a slender point, which is inserted into the base of the anther; *anthers* linear; *pollen* golden yellow. *Ovarium* bluntly 3-sided, the angles furrowed, smooth. *Stigmas* 3, small, spreading, slightly lobed, thickly clothed with glandular pustules.

Our drawing of this very rare and beautiful Tulip, was taken in April last, from plants in the Botanic Garden, belonging to the Apothecaries' Company, at Chelsea, where its roots have spread round for several yards, throwing up plants at near distances all round, so that it will soon become plentiful. Mr. Anderson received it several years ago from Dr. Fischer, Curator of the famous Botanic Garden at St. Petersburg; and we should have had it figured before, but could find no description that would agree with it, though there are several nearly related species lately described in the second part of the seventh volume of Schultes Syst. veg. lately published; it is nearest related to *T. Biebersteiniana*, but differs in its inner sepals being very hairy near the base, the outer ones being bearded at the point, which in *T. Biebersteiniana* is said to be smooth; the dense beard at the base of the filaments, not slightly bearded; it differs from *T. heteropetala* of Ledebour, (a very bad name for a plant that has no petals), in that having smooth leaflets to the perianth, and smooth filaments.

According to Linnæus, the generic name is of barbarous origin, but the Persian name is *thoulybân*, (from De Souza,) whence is undoubtedly its origin. In old French it is called *tulipan*.



1. One of the inner leaflets of the Perianthium back view, to show the hairs at the back and the fringe from the base upwards. 2. One of the outer leaflets, smooth at the base, tipped with a minute bunch of hairs. 3. One of the Stamens, showing the dense bunch of hairs at the base of the filament. 4. Ovarium bluntly 3-sided, tipped by a shortly 3-lobed pustulate Stigma.



CRÓCUS Imperati.

Imperati's Crocus.

Linnean Class and Order. TRIANDRIA MONOGYNIA.

Natural Order. IRIDEÆ. *Brown prodr.* 1. p. 302.

CROCUS. *Spatha* plerumque bivalvis, valva interior multo angustior. *Perianthium* corollaceum: limbo 6-partito infundibuliformis subæqualis: segmentis tribus exterioribus majoribus: tubus longissimus basi subterraneus. *Stamina* 3, fauci inserta. *Stigmata* 3 dilatata, serrulata aut incisa. *Capsula* 3-locularis.—*Radix bulbo-tuber*; indusiis scarioso-membranaceis. *Foliis angusto-linearibus patentibus aut suberectis, canaliculatis supra lineam albam exaratis.*

C. *Imperati*, stigmate incluso 3-fido staminibus longiore: lobis cuneiformibus incisicis crenulatis; perianthii segmentis lato-ellipticis obtusis subemarginatis; intus concoloribus violaceo-purpureis; fauce nuda aurantiaca, *spatha* bivalvi, foliis hyperanthiis linearibus crassis revolutis, costa alba canaliculatis, tunicis radicalibus membranaceo-filamentosis. *Crocus Imperati.* *Tenore Mem. sul. spec. e varietà di Crochi, della. Flora Napolitana.* p. 10. *tab. III. app. 5 ad fl. neap.* p. 4. *Spreng. tent. supp. syst. veg.* p. 2. *Swi. hort. brit. ed. 2. add.* p. 596.

Root a bulb-tuber, at the time of flowering fusiform and naked below, the fusiform-root sometimes extending to the depth of 6 inches: sometimes producing a shorter one from the upper part, as in *Tenore's* figure: the upper part, or bulb itself, about the size of a large hazel-nut, covered with a scarioso membranaceous indusium, sheath broad, membranaceous, funnel-form, surrounded by fascicles of the old leaves. *Leaves* 4 to 6, when in flower recurved, spreading, or laying on the ground, narrowly linear, keeled, dark green, marked with a longitudinal white line on the upper side, a line and a half in breadth, and from 3 to 5½ inches in length, revolute at the margins. *Spathe* 2-valved, valves broad, membranaceous, about the length of the tube. *Perianthium* corolla-like: *tube* from 1 to 3 inches in length, apex white, striped: *segments* broad, elliptic, obtuse, or somewhat emarginate, inside dark violet or pale purple: the 3 outer ones on the outside more or less of a yellow tinge, longitudinally marked with 3 dark violet feathered lines; on the inner side towards the base veined: the throat and mouth naked, and orange-coloured. *Stamens* 3: *filaments* pale yellow, or white: *anthers* deep yellow, emarginate at the point, and sagittate

at the base. *Stigma* the length of the stamens, included, 3-fid, lobes wedge-shaped, jagged and slightly notched. *Flower* without scent.

For the opportunity afforded us of giving so fine a figure of this beautiful and rare plant, we are indebted to the Honourable Miss Murray, daughter of Lady George Murray, who made the drawing from a plant that flowered with the Honourable William T. H. Fox Strangways, who brought it with him from Naples. The following is copied from Tenore's account of it in his *Memoir. di Crochi*. "Hab. in mont. a 6 m. pedom altitudinem, in monte Pollino Calabriæ citerioris ad 6 m. pedom altitudinem. *Alpiano di Faito* montis divi Angeli Stabiarum; ad pedes 3 m. altitud; in insula Caprearum, et præcipue ad montem vulgo Monte Solaro, paulo minoris elevationis; in montibus circa Potentiam Lucaniæ; in montibus Mamurrarum?"

We received a bulb ourselves of the same species, from Mr. Charles Ridgway, in the Spring of 1830, who was so kind as to procure a bulb of it for us at Naples; it thrived very well, and sent forth a flower-bud about Christmas, but a snail eat it up before it had quite expanded. We received many other curious bulbous and tuberous-rooted plants from Mr. C. Ridgway at the same time, many of which are doing well.

The present species requires no particular care in its treatment, only to be planted in a warm sheltered border, in a light sandy soil, and to have a slight covering placed over it in severe frosty weather; numerous rather tender plants are lost for want of this care, in very severe frosty weather. Like the rest of the family, it will most probably produce offsets from the bulb, but those appear to be rarely produced, which might probably account for their scarcity; it is certainly a handsome early Spring flowering bulb, and is worth a place in every collection, particularly where a collection of bulbs is kept up.

The generic name is of poetical origin, according to Linnaeus; and is derived from *Crocus*, a handsome youth, who, being in love with a young lady called *Smilax*, pined away into a flower of that name.



1. The 3 Stamens, terminated by the 3 long linear anthers. 2. Style, terminated by the 3 dilated pointed Stigmas. 3. Bulb, showing its torn covering, and the long tuber tapering down to a point, which is only produced when the bulb is in flower.



2

3

Pub. by J. Redgrave 1858. London. Swales.

GANYMEDES pulchellus.

White-cupped Ganymedes.

Linnean Class and Order. HEXANDRIA MONOGYNIA.

Natural Order. AMARYLLIDÆ. *Brown prodr.* 1. p. 296.

Sect. V. Spatha monophylla. 1. v. multiflora. Perianthium tubulosum, petaloideum, 6-partitum, coronatum.

GANYMEDES. *Perianthium* segmentis Cyclaminum more reflexæ; coronâ penduli poculiformi duplo vel plus longiores. *Genitalia* recta gracilia valde inæqualia. *Filamenta* tria tubo breviora et eo connata fere ad antheras erectas lineares: tria alia e tubo progredientia usque ad 3 lineas, et libera ultra tubum at coronâ breviora. *Ovarium* triloculare: loculis polyspermis quadrifariam productus. *Stylus* coronâ longior usque 2-3 lineas et ultra: *stigmatibus* trilobo exiguo pallido.—*Herbæ bulbosæ elegantes Europææ.* *Corbulariarum foliis et habitu, at majores, et spatheis 2-7 floris, floribus cernuis nutantibusve, albis; sive pallidissime luteis, stramineisve; et delicatissime suaveolentibus.* Haworth *Narciss. revis. in Suppl. plant. succ.* p. 130.

G. pulchellus, pluriflorus, foliis erectis linearibus subsemicylindricis striatis supra canaliculatis, ovarium obtuse trigonum ovale, perianthii segmentis longitudine tubi reflexis lanceolatis, corona segmentis breviora poculiformi 6-fida repandula, filamentis superioribus tubo paulo altioribus, stylo incluso.

Ganymedes pulchellus. *Salisb. in Hort. trans. v. 1. p. 354. Haworth Narc. revis. in Supp. pl. succ. p. 132.*

Narcissus pulchellus. *Salisb. prodr. p. 223. Swt. hort. brit. edit. 2. p. 515.*

Narcissus triandrus v. luteus. *Botan. magaz. t. 1262.*

Narcissus juncifolius flore luteo reflexo. *Park. parad. p. 92.*

Bulb round, about the size of a Blackbird's egg, clothed with a thin pale brown membranaceous scale. *Leaves* narrowly linear, acute, semicylindrical, striated with prominent longitudinal lines, channelled on the upper side, dark green, smooth, about the length of the scape. *Scape* erect, cylindrical, smooth, from 6 to 9 and a half inches in height. *Spathe* 1-valved, membranaceous, lanceolate, acute, striated with numerous lines, 1 to 4-flowered. *Peduncles* bluntly triangular, some longer than the spathe, others not so long. *Ovarium* oval, bluntly 3-angular. *Perianthium* corolla-like, tubular, crowned, and the crown surrounded by 6 petal-like leaflets: *tube* about 11 lines long, bluntly triangular, slenderest at the base, and becoming gradually inflated upwards; *leaflets* elliptically oblong, cuspidate at the points, of a pale yellow, all reflexed, and somewhat twisted, about the length

of the tube, or sometimes scarcely so long, about twice the length of the crown. *Crown* bowl-shaped, white, or slightly tinged with straw-colour, slightly crenulate or undulate. *Stamens* 6: 3 inserted about half way up the tube: the other 3 inserted at the end of the mouth, on longish filaments, that are connected to the back of the anthers: the 3 lower ones on short filaments, which are attached to the back about half way up. *Style* smooth, slender. *Stigma* 3-lobed, the lobes pustulose. *Ovarium* 3-locular, 3-valved: ovula numerous in each cell, disposed in 4 rows; 2 rows on each septum, round, and white.

The present genus is decidedly different from *Narcissus*, and several other genera that are, and others that will be divided from it; this differs from most others, in the leaflets of the perianthium being reflexed; in having 3 of its stamens inserted a long way down the tube, and the other 3 in the mouth, in its ovarium bearing 2 septums up each cell, each of which bear 2 rows of seeds, and the seeds rounded; this particularly distinguishes it from *Hermione* and *Narcissus*, which have only 2 rows of seeds in each cell: by examining the ovariums of several species, we find good characters in the form, situation, and arrangement of the seeds, on which generic characters may be readily formed. *Jonquilla* will form a distinct genus, consisting of a few species; by its somewhat kidney-formed seeds, very different from *Hermione*, with which it had previously been placed; and *Hermione* will contain some subgenera, as well as sections, subsections, and divisions, and very natural ones.

The plants of which the present genus is now composed are very delicate, and all produce elegant flowers, none of them more beautiful than the present, with its delicate pale yellow leaflets of the perianth, and straw-coloured or sometimes pure white crown: it is well deserving a place in all collections, as it will thrive well in any rich light soil, and increases readily by offsets, and by seeds. The drawing was taken from a plant in our collection.

The generic name is poetical, and derived from *Ganymedes*, the son of *Tros*, King of *Troy*, whom *Jupiter*, in the form of an eagle, snatched up, and made his cup-bearer, instead of *Hebe*; this agrees very well with the genus, as the flowers have all large cups.



1. Flower spread open, to show the insertion of the Stamens 2. Ovarium 3-sided, showing the Style, and shortly 3-lobed Stigma. 3. One of the cells, the outside stripped off, to show the 4 rows of seeds.



C. D. Smith del.

Acc. to J. Kingway 1890. Acc. to J. Smith 1891.

Max.

BÉRBERIS dulcis.*Sweet-fruited Berberry.***Linnean Class and Order. HEXANDRIA MONOGYNIA.****Natural Order. BERBERIDEÆ. DC. reg. veg. syst. nat. 2. p. 1.**

BERBERIS. *Calyx* 6-sepalus, sepalis ordine duplici dispositis, exterioribus minoribus, extus squamulis 2-3 stipatus. *Petala* 6, ungue intus biglanduloso. *Stamina* 6, filamentis edentulis, antherarum loculis discretis. *Ovarium* 1 ovatum. *Stylus* 0. *Stigma* orbiculatum medio umbilicatum. *Bacca* ovata, 1-locularis, 2-3-sperma, apice umbilicata aut foramine pervia, hinc intus nervo è foramine deorsum tendente lateraliter aucta. *Semina* 2, rarius 3, ad basin lateraliter inserta, erecta, oblonga, testâ crustacea, albumine carnosio, cotyledonibus foliaceis ellipticis, radiculâ longâ, apice capitellata.—Frutices 2-6 pedes alti. *Rami teretes aut subangulati*. *Folia caulina et ramea, alterna, petiolata, primordialia grosse serrata, dentibus in spinas productis, cætera primaria abortiva* (1) *et petiolo remanente indurato in spinam simplicem trifidamve mutata, secundaria nempe axillaria secus ramulum floriferum brevissimum nascentia, conferta simplicia, integra aut serrata, rarissimè omnia abruptè pinnata, petiolo brevissimo apice ut in Tragacanthis indurato*. *Ramuli axillares, brevissimi pedunculos nunc solitariis unifloros, nunc plurimos corymbosim dispositis, nunc racemosos multifloros apice gerentes*. *Flores in omnibus flavi*. *Baccæ sæpiùs acidæ subadstringentes*. *Succus trunci et foliorum acidus adstringens*. DC. syst. veg. syst. nat. p. 4.

B. dulcis, fruticoso ramoso, ramis flexuosis triangularis piloso-pubescentibus, foliis oblongo-ellipticis apice spinoso-mucronatis margine cartilagineous: caulinis longe petiolatis: axillis confertis breve petiolatis, petiolis piloso-pubescentibus, floribus solitariis longe pedunculatis pendulis.

Stems shrubby, much branched, from 4 to 10 feet in height: *branches* flexuose, acutely triangular, swollen a little at the joints, densely clothed with short hairs on a brown glossy bark. *Spines* 3 or 5, connected at the base, and close pressed to the bunches of leaves; flattened and channelled on the under side; the lower ones producing 5, and spreading out like a fan; the centre one longest and pointing straight forward, scarcely half an inch in length, the two next rather shorter, and the lower ones shorter and more slender: those higher up the stem connected in threes, the centre one about half an inch in length and pointing straight outwards; the other 2 rather shorter, and pointing at right angles. *Leaves* oblongly elliptic, or sometimes lanceolate, terminated by a short spiny mucrone, attenuated downwards with a cartilaginous margin, the veins much branched, of a bright glossy green on the upper side, and pale underneath; growing in tufts up the stem, where they are of various sizes, some broader and others narrower, sur-

rounded at the base by several brown ovate bractes; *stem-ones* on the young growing shoots on very long footstalks, dilated at the base. *Petioles* densely covered with short hairs, seated on little rough glands. *Flower* of a bright yellow, solitary, slender, on a very long peduncle, about an inch and a quarter in length, proceeding from the tufts of leaves, up the stem. *Peduncle* slender, drooping, clothed with a short glandular pubescence. *Sepals* 6, unequal in size, of a bright yellow, ovate, concave on the upper side, rounded at the points: 3 outer ones about one third the size of the inner ones. *Petals* 6, opposite to the sepals, shorter than the inner ones, ovate, entire, concave inwards, somewhat undulate at the margins, rounded at the points, of a deep orange colour. *Stamens* 6, opposite to the petals: *filaments* carnose, thickened to where the anther is joined: *cells of the anther* distinct, pedicelled, spreading; *pollen* granular, glossy, having the appearance of minute grains of glass. *Ovarium* smooth, roundly oval, tapering to the stigma. *Stigma* large and fleshy, peltate, orbicular.

Our drawing of this beautiful and valuable species of Berberry, was taken from a fine plant in full flower in March last, at the Nursery of Messrs. Low and Co., of the Clapton Nursery: it was collected by Mr. Anderson, the Collector in Captain King's expedition to the Straits of Magellan, and other parts of South America. The present one was collected in the Straits of Magellan, where the fruit is used as we use Gooseberries, both green and ripe, for making pies and tarts, and other sweetmeats or preserves, for which it is most excellent, the berries being black and about the size of a black currant, and are produced in great abundance. The flowers are very handsome, being of a bright yellow and nodding, and make a very elegant appearance. Mr. Anderson says, the species extends from Chiloe to the Straits of Magellan, but says, the plants in Chiloe are much larger and lose their leaves in winter; and that those from the Straits of Magellan are evergreen. At Mr. Low's Nursery, there are plants also of the deciduous one, which we believe now proves to be a distinct species.

This species will prove a valuable addition to the gardens, as it will doubtless be quite hardy, and will certainly produce an abundance of its elegant flowers and delightful fruit, which will be a great acquisition for making sweetmeats and preserves, and for many other culinary purposes: it will doubtless strike readily from layers, or may be increased readily by inarching on the common Berberry; or young cuttings, planted under bell-glasses in pots of sand, will doubtless strike root readily. The best soil for it is a mixture of sandy loam and peat. *B. empetrifolia* has also flowered at the Nursery at Clapton, and is a pretty little dwarf evergreen shrub.

According to Linnæus, Berberis is an obscure Latin word. Golius (at p. 246.) says it is the Arabic name of the plant.



1. The 3 outer Sepals of the Calyx. 2. The 3 inner ones. 3. The 6 Petals.
4. The 6 Stamens with 2-lobed anthers. 5. Ovarium terminated by the peltate Stigma.
6. One of the leaves from the growing branches.

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A MONOGRAPH

ON THE

SUBORDO V. OF AMARYLLIDÆ,

CONTAINING THE

NARCISSINÆ.

By ADRIAN HARDY HAWORTH, Esq. F.L.S. &c.

Subordo V. NARCISSINÆ. Spatha monophylla, 1-multiflora. Perianthium tubulosum, petaloideum, 6-partitum, coronatum.

* Genitalia adscendentia.

- I. CORBULARIA. *Narc. Revis.* 111. *Corolla* laciniis exiguis coronâ truncata sæpissimè brevioribus. *Ovarium* subturbinatum cylindricum triloculare, loculis trivalvis, valvis biseptiferis, semina triangularia numerosa bifariam inserta. *Folia* filiformia canaliculata viridia.

† Albifloræ.

- 1 *cantabrica*. C. (the lesser white) candida: corona crenata, stylo inclusio. *Clus. Hist.* 166. f. 2.

- 2 *albicans*. C. (the larger white) corolla sulphureo-albicans integerrima, stylo exserto. *Park. Par.* 106. f. 4.

†† Flavifloræ.

- 3 *Bulbocodium*. C. (the small entire-crowned) parva: corona integro, stylo inclusio. *Linn. sp. pl.* 3. 417. *atque ejus Herbarii.*

- 4 *tenuifolia*. C. (slender leaved) parva: corona 6-lobata, stylo exserto. *Narc. Revis.* p. 121. *Sect. Br. Fl. Gard.* t. 114. Martio floret.

- 5 *anrea*. C. (the shorter crowned) corona repando-crenata laciniis brevior stylo exserto. *Schult. syst.* 7. 985. *Moris.* s. 4. t. 9. f. 15. *H. Eyst. ord.* 3. fol. 13. f. 4.

- 6 *obesa*. C. (the inflated) corona inflata integra, stylo exserto, foliis semper humifusis. *Narc. Revis.* p. 122. *exclus.* *synon.* Martio floret.

- 7 *lobulata*. C. (the lesser hoop-petticoat) corona undulato-lobata stylo fere semper inclusio. *Narc. Revis.* 123. *Park. Par.* 107. f. 7. *Clus. Hist.* 166. f. 1. Apr. floret.

- 8 *conspicua*. C. (the showy) magna: inodora: corona lævissimè repandulata, stylo fere semper exserto, foliis sub anthesin erectis. *Park. Par.* 107. f. 6. f. Ap.

- 9 *serotina*. C. (the large, late) magna: corona integra, stylo inclusio. *Pseud. Narc. serotinus*, &c. *Park. Par.* 106. f. 8. *N. turgidus. Salisb. Prod.* p. 222. *N. Bulbocodium Bot. Mag. nec Linn. neque ejus Herbarii.* med. *Nil* floret.

10. *Gigas* C. (the giant) corollæ laciniis lanceolato-linearibus coronam maximam campanularem plusquam 2-uncialem sequantibus, stylo alte porrecto. *Pseudo Narcissus pyrenæus* flore subinteo amplo calyce juncifolius. *Theatr. Flor.* t. 21. Fig. inferior media. Cæteris 2-3-plo major.

** Genitalia recta.

- II. AJAX. *Narc. Revis.* 111. *Corona* lobata, crenata, serratave, fere vel plus longitudine laciniarum sæpissimè imbricatarum corollæ. *Ovarium* triloculare, trivalve; *ovula* in valvis quadrifariam inserta. *Folia* ensiformia vel lorata obtusa sæpe infernè carinata, et supra, ab inflexis lateribus latè canaliculata.

- *Minores*, flaviflores, tubo longiusculo.
† Corollæ laciniis semixpansis.

- 1 *minimus*. A. (the least) corollæ laciniis imbricatis, corona patula 6-lobata valde crispa, ante anthesin ipsum humum nutantim tangente. *Obs.* foliis perglaucis trientalibus humi subjacentibus. *Pseudo-Narcissus minimus. Park. Par.* 107. 3. *Mala.* *Narcissus minor. Bot. Mag.* 6. *spatha supra* germen ex errore posita!

- 2 *minor*. A. (the lesser) corollæ laciniis imbricatis, corona patula 6-lobata valde crispa, scapo erectiore. *Obs.* foliis patulo adscendentibus perglauca 6 uncialibus.

- A. *minor. β. Narc. Revis.* 112. *N. minor. Linn. sp. pl.* p. 415. et ejus *Herbarii. Ps. Narcis. minus. Park. Par.* 107. f. 3.

- β. foliis longioribus erectioribus quam α. *Pseudo-Narcissus medius. Park. Par.* 105.

- γ. *angustus*, foliis erectis longè angustioribus quam in prioribus. Forte propria species: Omnes var. med. Martii florent excepta forte hæc, que non vidi florens.

- 3 *pumilus*. A. (the small) corollæ laciniis obcuneatis distinctioribus. Forte præcedentium. *Ajax cuneifolius. Narc. Revis.* 113. *Narcis. pumilus. Salisb. Prod.* p. 220.

A

- †† *Reflexiflores*, corollæ lacinis reflexis.
- 4 *cyclamineus*. A. (small reflexing-flow-
ered). N. hispanicus minor luteus am-
plo calyce foliis reflexis. *Theat. Flor.*
t. 220.
- *Pallidiflores* : corollæ mediocri seu
majusculæ, tubo abbreviato, lacinis
quam prioribus magis expansis albi-
cantibus seu albis, corona alte lutea.
- 5 *nana*. A. (the dwarf sulphur) corollæ
lacinis subsemirectis ovatis sulphu-
reis tubo sesquolongioribus, corona per
lutea subrecta, ore lobatim crenata
plicata crispâ.
N. minor ð. conspicua. *Narc. Revis.*
p. 112.
Obs. Folia glaucissima semunciam lata.
Flos sesquiancialis fere inodorus
aperiens f. Feb. seu l. Mart.
β. Corollæ lacinis horizontalibus, fo-
liis duplo angustioribus minus glau-
cis.
Amicus Dom. Penny communicavit.
Floret cum α.
- 6 *brevisifolius*. A. (short whitish petalled yel-
low crown) corollæ lacinis albescenti-
bus tubo coronâ lateâ cylindricâ rec-
tissimâ crenato-incisâ duplo breviorē,
foliis glauca.
- 7 *lorifolius*. A. (whitish petalled yellow
crown) corona lutea, corollæ lacinis
albis a. albicantibus, scapo teretinsculo
ancipiti, foliis vix glaucescentibus.
A. lorifolius α. *Narc. Revis.* 119.
N. bicolor, *Bot. mag.* 1187, nec
Linn., neque ejus Herbarii. *Obs.*
Elatior quam priore foliis magis viri-
dibus corollâ longiore.
- β *anceps*. Scapo ancipiti, magis com-
presso.
- A. lorifolius γ. *anceps*. *Narc. Rev. l.c.*
- 8 *bicolor*. A. (great white petalled yellow
crown) corollæ tubo longitudine peri-
carpli, lacinis niveis incurvo horizon-
talibus subtortis tubo triplo longioribus
ovato-lanceolatis corona lutea basi ven-
triosa brevissime 6-lobata repando-
crenata, vix plicata. *Narc. Rev.* 119.
Narcissus bicolor. Linn. *sp. pl.* 1. 415.
N. tabæfflorus. Salisb. *Prod.* p. 221.
- *Albiflora*, corollis mediocribus seu ma-
jusculis, primo sulphureis demum al-
bis, corona longissima.
- 9 *albicans*. A. (the greatest Spanish white)
corollæ lacinis ovato-lanceolatis plani-
usculis albidis : corona crenata sulphu-
rascente.
Pseudo-Narcissus hispanicus maximus
albidus. *Park. Par.* p. 100. t. 101. f. 1.
Vidi florentem, apud Dom. Young's
Epsomæ. Apr. 1831.
- 10 *tortuosus*. A. (the great tortuose white)
corollæ lacinis prætortuosis sulphureo-

- albicantibus, corona citrina crenata
demum alba longe brevioribus.
- N. tortuosus. *Nob. in Misc. Nat.* p. 179.
N. moschatus. *Bot. Mag.* t. 924, nec
Linn., neque ejus Herbarii. N.
longiflorus. Salisb. *in Hort. Tr.* 1.
p. 349.
- 11 *cernuus*. A. (the drooping creamy white)
corollæ cernuæ denique alba lacinis
prætortuosis sulphureis, corona citrina
ore sexlobato plicatato, lobis rotun-
datis recurvantibus margine aliquan-
tillum repandulo.
N. cernuus. *Roth. Cat. Bot. fasc.* 1.
p. 48. *Sweet br. fl. gar. c. 2. s. 2.*
t. 101. Pseudo-N. hispanicus flore
albo minor. *Park. Par.* 100.
β. flore elegantissime pleno. *Nob. in*
Phil. Mag. Jun. 1830. p. 134.
Sweet br. fl. gar. c. 2. s. 2. t. 101.
Vidi in horto Whitley, Brames, &
Mihne, apud Fulham, April floren-
tem.
- 12 *moschatus*. A. (the lesser Spanish white)
corollæ lacinis tortis primo sulphureis
centibus demum albis, coronæ longitu-
dine.
N. moschatus. Linn. *sp. pl.* 1. p. 415.
et ejus Herbarii. N. moschatus 2.
Bot. Mag. t. 1800. N. candidissi-
mus. *Redout. Lil.* t. 189. Ajax
patulus. *Salisb. in Hort. Tr.* 1.
p. 248. Pseudo N. hispanicus fl.
albo minor. *Park. Par.* p. 100. t. 101.
f. 4.
- *Lutei*, floribus plerumque luteis,
sepe sulphureis, rarissimè stramineo-
albicantibus, corona plus minusve sepe
saturatiore.
- † *Serricorona*, statura mediocri, coronâ
minus profundè serrata seu crenata
quam in sequentibus.
- 13 *Pseudo Narcissus* A. (the garland) sca-
po ancipite teretinsculo recto striato ;
corollæ lacinis pallidè sulphureis, ex-
terioribus lanceolato-ellipticis tubum
vix superantibus : corona lutea ore
recto crenatim serrata longitudinè la-
ciniarum. Linn. *spec.* 1. p. 414.
Ajax festalis. *Salisb. in Hort. Tr.* 5.
243. Narc. Pseudo-Narcissus. *Eag.*
Bot. t. 17.
- a. pallidus, corollæ lacinie pallide lu-
teæ.
- β. *albis*. Corollæ lacinis albis.
- γ. *luteus*. Corollæ lacinis pallidè lu-
teis.
- δ. *plenus*, lacinis pallidis. *Park. Par.*
t. 101. f. 8.
- ε. *plenissimus*. John Tradescant's
great Rose Daffodil. *Park. Par.*
t. 101. f. 8.
- 14 *serratus*. A. (the serrate) scapo striato
subcompresso ; corollæ lacinis planis
sulphureis, exterioribus ovato-acumina-
tis : coronam luteam rectam plicatam
alte serratam non attingentibus.

- N. serratus*. *Nob. in Misc. Nat.* p. 170.
 β ? *suevis*.
- γ . *radicans*. Corona perlutea intus crebre rugulosa, ore patulo plicato subregulariter valde radianter serrata, lacinulis (corollae) semi-expansis ovato-oblongis sulphureis, tubo duplo longioribus.
 From the Epsom Nursery, March, 1831.
- δ . *præcox*. Corollae lacinulis saturate sulphureis planis plusquam semixpansis ovato-acuminatis tubo 5 lineas superantibus, coronâ patulâ luteâ grandè serratâ subaequantibus.
 Forte omnium præcocius floret in Hort. nobili, Hort. Londini Soc.
- 15 *nobilis*. A. (the noble serrate) scapo tere-
 tim ancipiti alte striato, lacinulis corollae
 patentissimis tortis ellipticis luteis, nec-
 tario perluteo ore patulo profundissime
 serrato brevioribus. *Nob. in Narc. Rev.*
 p. 115.
Narcissus pseudo Narcissus. *Red. Lill.*
 t. 158.
- †† *LOBATO-CORONÆ*, mediocres lobis
 interioribus.
- 16 *lobularis*. A. (Tenby 6-lobed Daffodill)
 corollae lacinulis luteis tubo obconico
 exactè duplo longioribus: corona per-
 lutea patula sexlobata (lobis integris)
 lacinulis tres lineas superante. *Nob. in*
Phil. Mag. May, 1830. p. 131.
 This grows wild near Tenby in Pem-
 brokeshire, which by mistake was
 written Truby in Derbyshire, in the
 place above cited.
- β ? *ampliorcorona*.
Obs. In Chelsea Garden a wild bulb
 from Devonshire, with double flow-
 ers, produced offsets bearing for the
 three last years permanently *single*
 ones. Was its source genuine, it
 would form a good species with the
 following essential characters.
Corollae lacinulis ovato-acutis valde im-
 bricantibus luteis, tubo sesquilon-
 gioribus; corona amplissima perlutea,
 basi ad apicem per dilatata sub-20
 lineas expansa crenatim incisa sub-
 plicata crispula, intus rugosiuscula,
 lacinias superante.
- γ . *plenus*. (The common deep yellow
 double Daffodill.)
- δ . *scotica*. Scapo compresso ancipiti
 torto alte striato, corollae lacinulis
 lanceolato-ellipticis sulphureis tu-
 bum longe superantibus, corona lutea,
 ore magno expanso incisco-cre-
 nato ruguloso.
 Forte propria species. Exemplar-
 ium unum solum examinavi.
- 17 *rugilobus*. A. (the early rough lobed)
 corollae lacinulis ovato-acuminatis luteis,
 tubo tertio parte fere longioribus;
 corona perlutea altè sexlobata, lobis
 patulis plicatim crispo-rugosis.
 Amicus Dom. Johannes Denson, Ju-
 nior; communicavit. Floret i, Mar-
 tio prope Londinum. Nova species.
- 18 *cambricus*. A. (the recurving-lobed) co-
 rollae lacinulis luteis ovato-acuminatis
 tubo tertio parte longioribus, corona
 perlutea altè sexlobata, lobis patulis
 vix rugosiusculis plicato-crenatis re-
 curvantibus.
 Communicavit amicus Dom. Penny,
 fine Martii, 1831. *Habitat* in Cam-
 bria. Nova species, vel fortasse
 precedentis varietas. Florem unum
 marcescentem solum vidi.
- 19 *obvallaris*. A. (short-tubed spread crown)
 corollae lacinulis tubo $\frac{1}{2}$ longioribus rec-
 tis ovatis, interioribus multo angusti-
 oribus valde imbricatis; corona infun-
 dibuliformi basi cylindracea 6-fida, re-
 pando-dentata superne plicata.
A. obvallaris. *Narc. Revis.* p. 120.
N. obvallaris. *Satseb. Prod.* p. 221.
N. major γ . *Gawler in Bot. mag.*
 t. 1381. *Ag. ima* sine foliis.
- ††† *INCISILOBÆ*. Majores, et maxi-
 mi, *coronæ* lobis profundis propriis sex,
 semper plus minus irregulariter laci-
 niato-serratis, s. crenatis.
- 20 *spurius*. A. (deep yellow) scapo lævi com-
 presso, ore coronæ perluteæ altè 6-fido
 patulo, lacinulis corollae semierectis lan-
 ceolatis luteis. *Narcis. Revis.* p. 115.
 Floret Aprili. *Narc. major* luteus ca-
 lyce prælongo alter. *Rudb. Elys.* 729.
- 21 *Telamonius*. A. (the long-flowered) coro-
 næ ore 6-fido expanso altè irregulariter
 crenato. *Narciss. Revis.* p. 116. *Flo-*
ret Aprili. In solo fertili, flos est fere
 trientalis longus.
- β . *grandiplenus*. (the great double.)
Park. Par. t. 101. f. 7.
 γ . pleno pallidus acuminatus (the acu-
 ter pointed paler double.) In the
 Fulham Nursery.
- 22 *propinquus*. A. (the great gash-crowned)
 corollae perluteæ lacinulis semierectis
 tortis incurvo-patulis, corona lacinia-
 ram longitudine, ore subpatente pro-
 fundissime irregulariter-dentato-cre-
 nato; foliis planis perglaucis.
N. propinquus. *Satseb. Prod.* p. 221.
Ajax lacinularis ejusd. in *Hort.*
trans. 1. p. 344. *Ajax propinquus*. β .
Narc. Revis. p. 116. *N. major*. β .
Gawler in Bot. mag. t. 1301, figura
 superior.
- 23 *maximus*. A. (the intermediate large yel-
 low) corollae perluteæ lacinulis patulis
 tortulis, corona ampla, 6-lobata lobis
 patentibus magis crenatis.
Ajax propinquus. a. *Narc. Revis.* p. 116.
N. maximus. *Hortorum Batavorum.*
 A 2

N. major totus luteus calyce prælongo.
Rudb. Elys. t. 71. f. 19.

- 24 *major*. A. (the great) corollæ perluteæ, laciniiis patula, corona patentissima amplissima, lobis omnium maximis recurvis subundato-crenatis; foliis glaucissimis spirilibus.

Narcissus major. Bot. Mag. t. 51.

- III. OILEUS. (Poetarum Ajax minor.) *Spatha* uniflora. *Corollæ* luteæ laciniiis patentibus. *Corona* longior, vel longitudine laciniarum integra seu integerima truncata. *Stylo* incluso. *Genitalia* non vidi. Statura et folia Ajacium minorum, discrepante corona abque fimbria serrarum.

- 1 *abscissus*. O. (the greater clipt-trunk) *Pseudo-Narcissus* tubo quasi abscisso. *Park. Par. t. 107. f. 1.* *Narc. flavus* tubo rotundo majore. *Rudb. Elys. t. 69. f. 4. Swertius Florileg. t. 22. f. 4.* β flore pleno. *Soleil Brillante. Trew flor. imag. t. 124. Narcissus IV.*

- 2 *hexangularis*. O. (the 6-angled clipt-trunk) corollæ integræ hexangularis, angulis in totidem mucronis obsoletis finientibus.

Narcissus subflavus tubo sexangularis. *Rudb. Elys. 60. f. 3. Swertius Florileg. t. 22. f. 1. Pseudo-Narcissus* tubo sexangulari. *Park. Par. t. 101. f. 5.*

- 3 *minor*. O. (the lesser clipt-trunk) *Narcissus flavus* tubo rotundo minor. *Rudb. Elys. t. 68. f. 4.*

Obs. Penultima simillima, at triplo minor.

- 4 *albus*. O. (the white) *Narcissus albus*, calyce seu tubo non fimbriato. *Rudb. Elys. t. 70. f. 7.—Obs.* Facies Ajacis minoris, stylo exserto.

- 5 *pumilus*. O. (the small clipt-trunk) *Narcissus hispanicus* tubo non fimbriato. *Rudb. Elys. t. 72. f. 15. Swertius Florileg. t. 21. f. 9.*

Obs. Ajacis minimi supra, valde similla, at corona, truncata.

Obs. I have not seen any of these species, and insert them with a view to excite inquiry after them. Q. capax. *Salisb.* may be among them.

- IV. ASSARACUS. (Ganymedis frater.) *Spatha* biflora. *Corollæ* ochroleuca nutantis laciniiis subsemireflexis. *Corona* subundata, poculiformis, laciniiis æquantibus potiusve superantibus. *Stamina* inclusa, *tria* ore tubi, alia *tria*, fere ore coronæ attingentes, ut in figuris infra citatis. *Folia* lorata plana et statura ut in Ajacium minorum, sed *Ganymedis* facie.

- 1 *Capax*. A.—*Narcissus Calathinus. Redout. Lill. t. 177. nec Linn.* Quætia capax. *Salisb. in Hort. Tr. 1. 358. N. capax. Schult. syst. veg. 7. 950.*

β . *plenus. Nob. in Phil. Mag. Jun. 1830. p. 134. Flores flavi dicuntur.*

- 2 *reflexus*. A. *Corollæ* pallide flava.

N. reflexus. Schult. syst. 7. 952. Narcissus calathinus. Red. Lill. t. 410. nec Linn. Linnæi N. calathinus vide infra sub Phyllogyne.

- V. ILLUS. (Ganymedis Frater.) *Spatha* 2-4-flora. *Corollæ* absolute cernua seu pendula laciniiis cyclaminium more reflexis, usque ad pedunculos, alba sive ochroleuca. *Corona* poculiformis integra laciniiis subduplo brevior. *Stamina* inclusa. *Genitalia* recta gracilia valde inæqualia. *Filamenta* *tria* tubo breviora adnata fere ad antheras erecta: alia *tria* e tubo progredientia usque ad 3 lineas, libera ultra tubum at corona breviora. *Stylus* exsertus 2-3 lineas vel plus. *Folia* juncoides valde canaliculata.

- 1 *cernuus*. I. (the pale yellow) corollæ ochroleucæ laciniiis planis oris albis, corona sesquolongioribus: scapo tertiusculo. *Narcissus cernuus. Salisb. prodr. p. 223. Ganymedes cernuus. Salisb. hort. trans. v. 1. p. 352. Narcissus triandrus. Bot. Mag. 48. non L. Ganymedes ochroleucus. Revis. pl. suc. 206. N. coronatus. Schult. syst. veg. 7. p. 986.*

- 2 *triandrus*. I. (the white twisting flowered) corollæ albæ laciniiis tortis corona duplo longioribus, scapo compresso. *Ganymedes albus. Revis. pl. suc. 206. Narcissus triandrus. Linn. sp. pl. 2. p. 416. N. Coornei. Schult. syst. veg. 7. 986. N. coronatus. ibid.*

- VI. GANYMEDES. *Corollæ* laciniiis semireflexis, nutantibus, vix cernuis, corona cyathiformi, laciniiis 3-4-plo brevior, *stylus* subinde inclusus. *Semina* ovata placentis duabus longitudinalibus linearibus affixis, duobus or dinibus in singula placenta, cetera ut in genere precedentiæ.

- 1 *pulchellus*. G. (the pretty white cupped) 3-7-flora: corollæ reflexæ laciniiis luteis, corona alba, stylo incluso semper. *G. pulchellus, Salisb. in Hort. Trans. 1. 354.*

N. triandrus v. luteus. Bot. Mag. 1262.

- 2 *concolor*. G. (the self-coloured) corollæ totâ lutea nutante, stylo semper alte exserto. *Narc. Revis. 134. 4.*

- 3 *striatula*. G. (the faint striped) subuniflorus: laciniiis corollæ luteis tortuosis non imbricantibus, corona sulphurea albicante striatula valde repanda triplo longioribus, stylo escluso. *Narciss. Revis. 132.*

Forte precedentis var. nec antecedentis, quandoquidem stylus exclusus.

- 4 *autans*. G. (the yellow cupped) sub3-florus: corollæ laciniiis pallide luteis corona saturatiore, stylo valde exserto. *Narciss. Revis. 131.*

Narcissus trilobus, Linnæi. *Gawler in Bot. Mag.* 945.

5 *albus*. G. (the white) corollæ albæ lacinii semireflexis corona integra subcupulari subduplo longioribus. *Narcissus totus albus reflexus. Moris. s. 4. t. 9. f. 13.*

N. juncifolius albus. *Park. Parad. t. 93. f. 1.*

β. *major*. N. juncifol. alb. magno calyce. *Park. Parad. t. 92.*

VII. DIOMEDES. Corollæ tubus clavatum cylindricus validus, corona poculiformi magna lacinias plusquam semiquante. *Genitalia recta. Filamenta subæqualia tubo semiplurve deorsum connata. Nob. in Phil. Mag. Nov. 1823.*

1 *minor*. D. (the small white petalled) filamentis tribus apice solum liberis, stylo corona brevior. *Floret Aprilis. N. Macleayl. Bot. Mag. 761.*

2 *major*. D. (the large white petalled) corollæ lacinii oris reflexis filamentis plusquam semilibris, stylo coronam æquante. *Nob. in Phil. Mag. l. c.—N. Sabini. Bot. Reg. 762. N. albus tubo luteo. Rudd. Elys. t. 69. f. 5.*

3 *Parkinsoni*. D. (shorter cupped) corollæ lacinii, corona plus duplo longioribus. *Narcissus albus oblongo calyce. Park. Parad. t. 71. f. 7. fig. 13.*

VII. TROS. (Ganymedis Pater.) *Spatha* 1-2 flora. Corolla e sulphureo albicante, ante aperturam ad scapum tortim inflexa plusque, postquam valde cernua, et tortula, lacinii corona recta, majuscula poculiformi delicatior eleganter plicata, ore plicatim-crenulato, plus duplo longioribus. *Filamenta æqualia tria plus dimidiatim, cæteris altius tubo adnata et libera plus quam antherarum longitudinem. Antheræ supernè curvatim semierectæ non versatiles. Cætera ut in Ajace, ut longissimè graciliores.*

1 *poculiformis*. T. (the great plaited cup) corollæ pendulæ mox nutantis lacinii rectis semiexpansis oblongiusculis cum acumine concavo inflexis corona ore crenulatim erosulo. *Queltia poculiformis. Salisb. in Hort. trans. l. 352. Narc. montanus. Bot. Reg. 2. 123. Obs. Individuus, forte varietas, per tres annos remanet omni parte triplo minorum.*

2 *Galanthifolius*. T. (snow drop-leaved) corollæ lacinii lacteæ nutantis subortis substellatis ovato-lanceolatis lateribus infernè deflexis, corona poculiformi plicatissima. *Synops. succ. app. p. 328. Obs. variat. Stylus longitudine coronæ vel plus, et 10 dies serius floret. Et stylo semper incluso 10 dies præcior.—Presented by Mr. Milne of Fulham, from his private Garden.*

VIII. QUELTIA. Omnia fere ut in generis precedenti, at omni parte graciore. *Spatha* 1-flora. Corolla nutante, lacinii corona duplo longioribus, corona late campanulata ore valde dilatato et sexlobulatim crispo-undulato. *Filamenta paulo magis tubo adnata.*

• *Sulphureis, corona lutea.*

1 *aurantia*. Q. (the orange rimmed) corollæ lacinii pallide luteis corona calyciformi perilutea, ore patulo 6-lobato, lobulis crispatis undulatis plicatisve subimbricantibus. *Narcis. Revis. 124. Obs. Semel vidi duos flores in eadem spatha.*

β plena: luteo-aurantia vulgo. *Butter and Eggs.*

2 *Gouani*. Q. (the lobed orange rim) lacinii luteis per oras demum recurvas, distinctis pallidè luteis, corona perilutea, supernè subaurantia sexlobata plicata crisper undulata.

Narcissus Gouani. Redout. Lill. tab. 138.

Obs. Folia florendi tempore pedalia glaucescentia valdè nervoso lineata. Scapus folia æquans anceps striatulus.

Q. *aurantia* proxima, sed minor, coronæ lobis certè longè distinctioribus profundioribus. Paulo serius floret.

3 *incomparabilis* Q. (the great incomparable) corollæ lacinii sulphureis, corona late campanulari lutea, ore valde patula, lobis magnis crispo-undatim quasi imbricantibus.

Narcissus incomparabilis. Bot. mag. t. 121.

4 *concolor*. Q. (the self-coloured incomparable) corollæ lacinii coronaque late campanulata lobata crisper uniformiter flavis concoloribus.

Narc. odoros. ð. Linn. amæn. Acad. v. 4. p. 311.

Narc. omnium maximus flore et calyce flavo. Park. Per. p. 68.

5 *semipartita*. Q. (the cloven-cupped) corollæ lacinii pallide sulphurascentibus, corona patentim-campanulata semisexpartita lutea, lobis parabolicis late concavo canaliculatis distinctis obsolete rugosis. *Narcis. Revis. p. 126.*

•• *Albiflores*, corollæ lacinii albis primo sulphurascentibus, vel omnino albis sive niveis; corona lutea.

•• *Alba*, corona lutea.

6 *alba*. Q. (the great white) corollæ lacinii primo sulphurascentibus mox albis imbricantibus, corona saturate citrina, lobis maxime crispis.

Narcis. Revis. p. 127. Narc. (odorus) latifolius maximus albo flore calyce brevi tubo. Linn. amæn. acad. 4. 311.

β? plena niveo-aurantia. Vulgo, the orange Phoenix.

7 *nives*. Q. (the lesser white) corollae stellaris lacinis tortuosis, basi (per oras reflexas) distinctis nivels corona lutea angustè campanulata plicata crispa undulata. Communicavit florentem amicus Johannes Denson, Junior, Menae April 1831. Obs. corona minus patula. Scapus anceps pedalis subviridis uti folia striata, vix glaucescentia, ut in priore, in qua etiam omni parte major.

IX. *S. HISANTHES*. *Spatha* 3-4-flora. *Corollae* sulphureæ stellatim-patentes. *Corona* perflava semitripartito-patula, recta, lacinis circiter duplo brevior. *Anthera* triliniaria. *Scapus* valde compressus fistulosus gracilis lævis substriatulus. *Folia* lorata plana erecta viridia, ad latera arcuè erecto-incurva. *orientalis*. S. (the triple-gashed.) *Narc. Reviv. p. 139.*

N. *orientalis*. *Lia. Aiton. Willd. N. incomparabilia. Bot. Mag. 948. Hermione β umbigena. Salisb. Hort. Tr. v. 1. p. 361.*

X. *PHILOGYNE*. *Spatha* 2-4-flora. Corolla concolor lutea. *Filamenta* gracilia tubo adnata, tria libera circiter antherarum longitudine, tria plus. *Anthera* contigua erecta lineares altitudine tubi. *Stylus* subgracilis antheras longe superans corona brevior. *Corona* varians sæpe heminaeformis lacinis subduplo brevioribus rarissime fere eadem longitudine. *Ovarium* oblongum, triloculare, trivalve: *ovula* oblonga subcapitata basi attenuata bifariam inserta.

* *Distinctiloba*. *Corona* sexlobata, lobis distinctissimis planis lacinis corollae distinctis.

1 *odorus*. P. (the great 6-lobed) corollae stellaris lacinis distinctis, corona lævi distinctissimè sexlobata patula campanulata, scapis 3-4 floris folio altioribus. *Narciss. Reviv. p. 134. N. odor.* *Linn. sp. pl. ed. 3. p. 416. et ejus Herbarii.*

N. *calathinus*. *Bot. Mag. 934, nec aliorum.*

Obs. Omnium major. Scapus 2-4 florus.

2 *Campernellii*. (the late great 6-lobed) scapus numerosus, 2-3-floris folio humilioribus, corollae lacinis flexuosis distinctis corona 6-lobata patula duplo longioribus.

N. *Campernellii. Hortulanorum.*

Priori similis, et forte varietas senior subpallidior corolla speciosior, corona lobis paululum minoribus, majis patulis seu recurvantibus, foliis altioribus florenti tempore Fl. Aprili in Malani. Forte formosissima varietas solum.

** *Subsexlobata*: *Corona* 6-lobata, lobulis obsoletioribus seu minus distincte definitis crepitis undulatis; *corollae* lacinis valde imbricatis, præinequalibus.

3 *rugulos*. P. (the great wrinkled cup) corona plicatula interne rugulosa, lobis profundis semicircularibus basi crispatis imbricantibus, lacinis corollae vix duplo brevior. *Narc. Rev. p. 135.*

4 *interjecta*. P. (the great-curled cup) sub-3-flora: corona obsoletè crispatis duplicato trilobulata seu irregulariter undulata lævi, externè obtusè angulata, lacinis corollae imbricatæ non duplo brevior: scapo sesquipedali. *Narc. Reviv. p. 135. neque ejus Herbarii.*

Obs. scapus solo fertilis sesquipedalis, 2-3 florus.

5 *Curtisii*. N. (Curtis's) corollae lacinis latè ovatis obtusis luteis, corona recta campanulari ore crispatis lobulato subnurtatore, subsequalioribus.

N. *odorus. Curtis Bot. mag. t. 78. non Linnæi.*

N. *lætus, Hort. Kew. ed. 3. v. 2. p. 216. non Salisb. qui est Philog. trilobus, supra.*

6 *calathina*. P. (the greatest cupped) spatha multiflora, nectario campanulato subcrenato æquante petala, foliis planis. *Linn. sp. pl. 1. 415.*

Narcissus angustifolius flavus magno calyce. Rudb. Elys. 2. p. 60. f. 6.

Species propria, corona maxima quæ non vidi vivam neque siccam, sed dubio sine bona; et præcedenti affinis; a qua nihilominus differt quandoquidem magna corona. Forte affinium *Phil. heminali* infra.

N. *calathinus. Redout. Pl. Lill. 417. est Asaraci species supra descripta.*

7 *triloba*. P. (the lesser 3-lobed) spatha sub-2-3-flora: nectario campanulato subtrifido integerrimo dimidio brevior petalis.

N. *triloba. Linn. sp. pl. 1. 147. Philogyne triloba, Narc. Reviv. p. 135. exclusis synonymia. Bot. mag. 78. et calathina, Salisb. et Park. Per. et Observationibus finientibus.*

Obs. *Corollae* lacinie inæquales subplanæ valde imbricatæ, coronæ campanulari crispatis lobatæ duplo longiores, late ovate submucronatæ, interiores parum tortæ ovato-ellipticæ. *Corona* recta ore obsoletè 6-lobato plicatis undulato-crenato.

8 *minor*. P. (the lesser) spatha biflora corona crispatis undulato-lobato: scapo dodrantali. *Narc. Reviv. p. 137.*

N. *rupicola. Schult. syst. v. 7. p. 958.*

N. *juncifolius. Schult. syst. p. 963. sed N. Assoanus. l. c. potius ad N. tenuirem. Bot. Mag. 379. pertinet.*

N. *Jonquilloides. Schult. syst. 7. p. 968?*

*** *Undato-coronæ*. Corollæ lacinia sub-
stellantibus seu angustioribus vix im-
bricantibus majus aequalibus, quam in
precedentibus, coronæ hæmiformi an-
gustiora integriora æsequi et subæ-
quilongioribus.

- 9 *æminalis*. P. (the narrow cupped) spa-
tha 2-3 flora, corollæ lacinia subæqua-
libus subimbricatis tortuosis, coronæ
hæmiformi subintegra sesquilongio-
ribus. *Narc. Revis. p. 436.*

N. Juncifolius luteus magno calyce.

Park. Par. t. 93. f. 4.

Obs. Folia mediocria hujus generis,
Juncoides atro-viridia.

- β. *pleriflora*. P. duplo major; scapi duplo
numeriosiores 1-3 flores longè altiores,
coronæ sæpe nec semper longiore; foliis
duplo majoribus pallidioribus.

Forte propria species; communica-
vit amicus Dom. Penny.

Narcissus Juncifolius maximus amplo
calyce. *Park. Par. t. 89. f. 5?*

XI. JONQUILLA. Nomen antiquum genericum, sed non Linnæi more con- structum.

Spatha 2-6 flora. Corollæ concoloris
flavæ lacinia in stellam quasi patentibus,
coronæ parva eroso-crenato
acetabuliformi seu patellari 4-5-plo
longioribus, scapi leves obtusè sub-
compressi. Folia Juncina semiteretia,
supra concavo-canaliculata erecta, sæ-
pius atro-viridia. Flores delicatissi-
mi suaveolentes. Semina incipientia
subreniformia. Cætera ut in *Her-
mione*.

- 1 *major*. P. (the great Jonquill) 3-6 flora:
sesquipetalis atroviridis: corollæ laci-
nis anguste-obovatis, tubo respectu
horizontalibus, coronæ sub4-plo longi-
oribus.

N. Juncifolius luteus vulgaris major.
Park. Par. t. 94. 7. tab. 93. f. 5.

- 2 *media*. J. (the middle Jonquill) pedalis,
3-4 flora, atroviridis subtriflora, co-
rollæ flavæ, lacinia late obovatis sub-
spatuliformibus semireflexis, coronæ
plus 3-plo longioribus.

N. Juncifolius luteus medius. *Park.
Par. p. 94. n. 8.*

- 3 *minor*. J. (the lesser Jonquill) 2-flora:
6-9-entalis, viridia, corollæ paulo pal-
lidioræ, lacinia cuneato-obovatis, co-
ronæ majore magisque expansa, 4-plo
longioribus.

N. Juncifolius luteus minor. *Park.
Par. p. 98. No. 9. Hermione simi-
lis. Salisb. in Hort. Tr. 1. p. 359.*

- 4 *parvicorona*. J. (the little-crowned) pedalis:
atroviridis: gracilis: biflora: corollæ
lacinia stellaribus flavis, coronæ satu-
ratiore paulo, omnium minore.

XII. CHLORASTER. *Spatha* 1-5-flora.

Corollæ viridis lacinia in gracillimam
stellam patentes. Coronæ minima in-
tegra, vel 6-partita, partibus incurva-
tis cochleatis incrassatis. Filamenta
omnino tubo adnata, 8 tubo breviora,
8 ejus longitudine.

- 1 *flavus*. C. (the cloven cupped) florendi tem-
pore aphyllus, coronæ hexapetaloides.
Phil. Mag. Mar. 1824.

Narcissus viridiflorus. *Bot. Mag. f. 1687.*

- 2 *integer*. C. (the intire cupped) spatha 3
flora, coronæ integra ante foliatione.

Narcissus Juncifolius autumnalis flore
viridi. *Park. Par. 94. 11. tab. 93. f. 6.*

XIII. HERMIONE. *Spatha* 3-20 flora.

Corollæ lacinia in stellam patentes.
Coronæ parva calyciformi seu cyathi-
formi vel cupulari 2-5-plo-longiores.
Tubus gracilis angulato-cylindricus:
corollæ lacinia longior viridis. Filamen-
ta fere toto tubo adnata apice so-
lum semilineam libera: tria tubo longe
breviora, tria ejus longitudine. An-
theræ parvæ trigono-ovate erectæ,
tres tubo incluse, tres id semisuper-
antes. Stylus rectus inclusus. Stigma
plus minus trilobato-trifidum, lobis ro-
tundatis.

- * *Flavo-concolores*; lævigati pervirides,
scapi teretiusculi vel parum com-
pressi, foliis plus minus Juncaginosis,
erectis, seu altè, concavo-canalicula-
tis, subulato-acutis.

† *Flavæ*.

- 1 *intermedius*. H. (the intermediate) foliis
canaliculatis viridibus basi subsemicy-
lindræ, scapo subcylindrico 1-3 flora,
coronæ cyathiformi seu dilatato crispo
subintegro, segmentis quadruplo bre-
vior.

N. intermedius. *Red. Lill. t. 427.*
Narc. major Juncifolius. *Hort. Eyst.
tet. tertius Ord. fol. 4. f. 1.* N. in-
termedius γ. *Schult. syst. 7. 963.*
sed var. β. l. c. est Philogyne tri-
loba *Nob.* Var. a Schult. nescio,
nisi est H. compressus supra.

- 2 *bifrons*. H. (the long flowered) 1-5 flora,
pedunculis longis effusis gracilibus.
corollæ lacinia stellaribus, coronæ ca-
lyciformi sexlobata ter longioribus.

N. bifrons. *Bot. mag. 1186.* N. longi-
florus. *Willd. enum. v. 1. p. 351.*
N. polyanthus flore minore stellato
toto luteo. *Rudb. Elys. t. 60. f. 7.*
Folia semunc. lata.

- 3 *compressus*. H. (the Jasmine Jonquill)
2-6 flora: pedunculis suberectis pa-
rumve ad germen paululum flexis, co-
rollæ lacinia imbricatis, coronæ erecta
eroso-crenata, subtriloba longioribus;
Obs. foliis singularitèr lata angustaque
eodem bulbo.

N. compressus. *Nob. in Lin. Tr. v. 5.
p. 245.* H. intermedius α. *Schult.
syst. v. 7. p. 965?* quæ non vidi!

(nisi est speciem presentem) neque figuram.

N. radiatus. *Red. Lill. t. 459.*

N. tripartitus. *Schult. syst. 7. p. 965.*

- 4 *primulinus*. H. (the cowslip capped) subquadriflora: scapo obtusissimè compresso, corollæ laciniis perlateis ovatis imbricatis, corona subaurantia patula sexlobata saturatiore 3-4-plo longioribus. *Narc. Revis. 140. Narc. bifrons 8. Bot. Mag. 1290.*

- 5 *biscrenata*. H. (large cowslip capped) scapo lævissimo 6-9-floro vix compresso, corollæ laciniis perlateis latissimè ovatis, corona sub 6-lobata, lobis plicato-crispulis bilobulatis, plus duplo longioribus. H. *primulina* β. *Narcis. Revis. p. 140.*
Obs. A priore precipue differt, statura majore, flores duplo numerosiores, lobis normalibus sex, iidem relobulatis seu bifidis; inde corona sub 12 lobulato-crenata est.

†† *Alba*.

- 6 *alba*. H. (the rush-leaved white) subsex-flora: corollæ-laciniis ovatis acutis imbricantibus albis, corona concinnè crenata fere duplo longioribus: foliis juncaginels obtusulis.

Narcissus juncifolius polyanthus albus.

Hort. Eyett. Ord. 3. fol. 17. f. 1.

Non vidi, sed l. c. solum descripai. Species valde singularis flore albo.

H. *biscrenata*, supra dubio sine proxima: a qua precipue alba corolla discrepat.

- *Rotuliflora*, ochroleuca seu lutescentes cupulari corona.

- 7 *tereticaulis*. H. (the green-leaved cream coloured) viridis: sub 6 flora: corollæ laciniis rotundo-ovatis imbricatis flos lacticoloribus, corona citrina subpatula subintegra lobulatave sesquiduplo longioribus, scapo inferne teretiusculo. *Narc. Revis. p. 140. N. orientalis. Bot. Mag. 1298. N. ochroleucus. Loisel. not. p. 163. Narc. p. 169. Flor. gall. ed. 2. 1. p. 236. Schult. syst. 7. p. 963.*

Obs. Corona subindè definite sexlobata. Folia angustiora, quam in sequentibus, sed sæpe sex lineas lata, extus majus convexa, supra majus inflexo-concava. Flores elegantissimè fastigiatim capitulati.

- 8 *rotularis*. H. (the glaucescent leaved) sub 8-flora, glaucescens: corollæ rotularis ochroleuca laciniis imbricatissimis, corona lutea duplo longioribus, foliis semunciam latis planis obtusissimis.

Narc. III. Trew Flor. Imagin. t. 105. Barrel. icon. 918.

Obs. Forte omnium obtusissima folia, scapus sesquipetalis teretiusculus. Flores demum lactei eleganter capi-

tati, sed in juventute incipientes, seu ante aperientiam insigniter abbreviati crassi, et quasi plenos flores simulantes. Corollæ laciniis amplissimè rotundato-ovatis variè flexis mucronatis et quasi plicatulatim rugosulis. Corona subcupulari paululum ore patulo, plicatim quandoque irregulari integra. Præcocius floret quam priore.

- 9 *flos-lactis*. H. (rich creamy white) sub 7-flora: Corollæ rotularis laciniis flos lacticoloribus apice rotundatis maximè imbricatis (tubo respectu) horizontalibus, tubo tertio parte brevioribus, corona cupulari integra perlutea duplo longioribus.

Obs. Nova species. Folia lorata plana viridia unciam basi, lata altitudine scapi, sub anthesin fistulosi, subcompressi grossi subcapiti.

- 10 *multiflora*. H. (the yellowish) sub 14 flora, corollæ rotularis laciniis pallide luteis, corona flava saturatiore subcupulari ore truncato-repandulato sub duplo longioribus: foliis lorato ensiformibus. *Herm. multiflora. β. Narcis. Revis. p. 146. N. orientalis 8. Bot. Mag. 1026.*

β. floribus pallidioribus.

••• *Flaviflora*. Corollæ laciniis longioribus seu acutioribus quam in sectione priore, plus minus luteis flavisve, corona sæpius aurantia.

† Corona plus minus cupulari.

- 11 *sublutea*. H. (the pale yellow) sub 6-flora, corollæ subrotularis laciniis pallide luteis ovatis, corona saturatissime lutea subcupulari ore patulo integro fere triplo longioribus.
Obs. Communicavit florentem amicis Dom. Penny. f. Ap. 1831, cum sequenti.

- 12 *perlutea*. H. (the full yellow) sub 4-flora, corollæ laciniis (tubo respectu) horizontalibus perluteis, corona cupulari aurantio-lutea subcrenata duplo plusve longioribus.

Obs. Similis parum, H. cupulari. *Bot. Mag. t. 925.* Sed differt coronâ longè pallidiora integriora, &c., et serior in f. Aprili floret. Affinior precedenti est, et varietates belgicæ vidi ambas valdè simulantes: et inde fortè solum prioris varietas.

- 13 *flavcola*. H. (the lesser pale yellow) sub 4-flora: corollæ laciniis ovatis imbricatis flavescentibus, corona cupulari, subintegra lute aurantia duplo longioribus.

Obs. Inter minores est. Florendi tempore subdodrantalis. Folia viridia obtusa vix glaucescentia 5-6-linearum lata altitudine scapi florenti obtusè compressi l. vi. Corollæ laciniis tu-

bo fere duplo breviores. *Stylus* et tres humiliores; *antheræ* cum *poliine* aureo, inclusæ. Communicavit cum sequente, ex Caldario, amicus Dom. Sweet, Martio, 1831.

- 14 *deflexicaulis*. H. (the self-coloured yellow) floribus subseptenis luteo-subconcoloribus secundis, laciniiis latè ovatis imbricatis, corona cupulari, scapo declinante, spatha abbreviata acuta. Narc. bizantinus luteus. *Park. Parad.* p. 78. No. 3.

Obs. *Folia* lata lorata erecta plana glaucescentia obtusa *scapus* ad anthesin subpedalis teretiusculus s. subcompressus subtriangulus firmus sed inanis, apicem versus precipuè, et foliis altior, et concolor. *Flores* inter mediocres; subhorizontales vel nantes. *Pedunculi* $\frac{1}{2}$ -ad 3 uncias longi erecti triangulares virides altitudine *spathæ*. Germen trigono-ovale perviride. *Corollæ* *tubus* lutescens trigonus, *laciniiis ext-rioribus* lato-ovatis acuminatis horizontalibus vel demum parum reflexis planiusculis, *tubi* longitudine vel brevioribus, *interioribus* minoribus ut in plurimis. *Corona* cupulari laciniiis in ætate paulo saturatior ore præplicatim subcrenulatò, *laciniiis* plerumque duplo brevior. *Antheræ* *corona* concolores. Cetera ordinaria.

β. *plena*. Narcis. cyprius flore pleno luteo polyanthos. *Park. Parad.* p. 86. N. 6.

- 15 *trifida*. H. (trifid crowned yellow) sub-3-flora: corollæ laciniiis pallide luteis, corona saturatiore subcampanulata trifida (lobis bifidis) subtriplo longioribus: foliis 9-lineas latis loratis planis obtusis glaucis.

Obs. In caractere, foliis exceptis, fere cum N. *tripartito*, *Schult. syst.* v. 7. p. 965, concordat, sed, in foliis glaucis latis obtusis, (non ullo modo Juncagineis) abundè discrepat.

Obs. In my rambles after Narcissi in the Nursery Gardens near London, I detected this species going out of bloom in the open ground of the Nursery of Messrs. Allen and Co., in the Five Fields, King's Road; who, when I expressed a desire to publish it as a new species, immediately presented it to me, with a view of aiding me in my long-tried and well-known endeavours to elucidate these charming and fragrant plants; and ever friendly to the science of Botany, they have often so assisted me before.

†† Corona acetabuliformi.

- 16 *aperticorona*. H. (spreading orange cupped) sub6-flora: corollæ laciniiis semireflexis late ovalibus præimbricatis peritatis, tubo brevioribus, corona aurantia patula plicatim subrepandulata sesquiduplo longioribus.

Obs. *Folia* lorata plana glaucescentia obtusa, 10 lineas lata. *Scapus* mediocri compressus striatus. *Floret* medio Aprilis.

**** RUFO-AURANTIÆ, Corollæ laciniiis flavissimis, corona rufo-aurantia, seu saturatissime aurantia.

- 17 *cupularis*. H. (the deepest orange cup) sub10-flora, corollæ laciniiis saturate flavis, corona cupulari rufo-aurantia truncata subrepandula subtriplo longioribus.

H. cupularis. *Salisb. in Hort. Trans.* 1. p. 361. N. flavus. *Lagasc. nov. gen. et spec.* p. 13. Narcissus Tazetta, *Bot. Mag.* 925. et *Redout. Lill.* t. 17. Nec Herbarii, Linn. N. africanus aureus major. *Park. Parad.* t. 81. f. 1. Soleil d'or Hortulanorum.

- 18 *solaris*. H. (the starry orange) corollæ stellariis laciniiis subovatis distinctis ad oras reflexis flavissimis, corona rufo-aurantia cupulari subintegra, sesquiduplo longioribus.

Obs. A precedenti cui simillima, pulcherrimè radiantibus laciniiis valde distinctis et non imbricatis ut in ea, discrepat.

Fine Aprilis, A.D. 1831, florentem, Dom. Allen and Co.: mihi donabant.

- 19 *latifolia*. H. (broad-leaved orange cup) subtriflora: corollæ laciniiis oblongo-rotundis valde imbricati flavis, corona rufo-aurantia recta integra fissave, 2-3-plo longioribus, stylo tubo incluso.

Obs. H. cupulari, humilior, *corollæ* minus rotularis, *corona* subinde ruptatim 6-fissa, seu 6-partita, et tunc plus minus patula. *Folia* ensiformi lorata obtusa basi unciam lata. Seminalem exemplum habeo, cum floribus septem, et corona integra, sed vix distinctum.

***** GRANDIFLORÆ, spatha 3-8-flora; corollæ laciniiis omnium hujus generis longioribus et speciosioribus imbricantibus albis rarius sulphureis luteisve. *Corona* conspicua patula acetabuliformi lutea subsesquiduplo longioribus. *Semina* incipientia subcylindrico-clavata. Genus proprium?

- 20 *Trewianus*. H. (great broad petalled) sub-8-flora: corollæ amplissimæ rotularis laciniiis albis planis, corona patula seu plicatim crenulata toto lutea.

N. Trewianus. *Kerr. in Bot. Mag. fol.* 1298. N. grandiflorus. *Synops. succ.*

appendix. 330. N. orientalis. *a. Gwiler in Bot. Mag.* 940. Bazleman major. *Trew. flor. imagin. Narcissus*, I. t. 23.

- 21 *flexiflora*. H. (flexuose large flowered) sub3-flora: corollae lacinia (tubo respectu) horizontalibus obovatis variè deflexis et flexulis niveis, corona lutea plicatim subundulata patula sesquiduplo longioribus.

Obs. Corollae laciniae exteriores precipuè semper plus minus ad oras deflexæ, et variè in aliis locis oblique tortulæ, apice mucronulatæ, ipsa basi lutesc. *Stylus* (in *Caldario* solum vidi) brevissimus fere ad basin tubi.

Obs. Pedalis (florend. temp.) foliis loratis glaucescentibus.

- 22 *subcrenata*. H. (great yellow cupped) 3-5-flora: corollae lacinia subreflexentibus albis, corona patula plicatulatim crenata toto lutea 2-5-plo longioribus, foliis loratis glauculis.

Cum priore floret. Hortulanorum Bazleman medius.

- 23 *crenulata*. H. (great saffron rimmed) sub3-flora: corollae lacinia subreflexis albis, corona patula lutea, croceo marginata plicatulatim crenulata 2-3-plo longioribus, foliis loratis angustioribus. N. crenulatus. *Nob. in Lin. trans. v. 5. p. 245.* N. Musarti. *Park. Parad. t. 81. f. 8.* Bazleman minor. *Trew. flor. imagin. Narcissus*, II. t. 62.

- 24 *sulphurea*. H. (great sulphury) sub3-flora: corollae lacinia varie tortula ad oras reflexo-stellantis sulphureis; corona crocea oris pallidis fimbriatis.

Narciss. polyanthemos præcox sulphureus maximus calyce croceo oris pallidis et fimbriatis. Barrot ic. 936.

- 25 *lutea*. H. (great yellow) lutea: sub3-flora: corollae lacinia magnis longis et acutè oblongis flexulis stellantis luteis. *Narcissus luteus polyanthos Iustanicus. Rudb. Elys. tab. 69. f. 2.* Bazleman luteo, Hortulanorum.

Obs. quatuor precedentibus similis sed corollae lacinia longioribus in figura supra citata et magis distinctis stellantibusque. Non vidi, neque precedentem.

Obs. The fine large flowered plants of this section are known to Gardeners by the several names of "Bazleman major, medius, minor, sulphureus et luteus." The last two, which appear to be distinct species, I have never yet possessed, but taken up on the authorities abovementioned, with a special view towards inducing all lovers of these plants to search for them. They are nearest allied to *H. flexiflora* above, and should perhaps have preceded it.

***** **SUBLONGIFLORÆ**: spatha 4-20-floræ: corollae lacinia longiusculis albis seu lacteis acutis corona lutea seu aurantiaca 2-3-plo longioribus.

- 26 *Tazzetta*. H. (the white, yellow cup) sub5-6-flora: corollae lacinia albis oblongo-ovatis acutis imbricatis, corona erecta subintegra lutea, sæpe triplo longioribus in eadem spatha.

H. Tazzetta. Narc. Revis. p. 442.

N. Tazzetta. Lin. sp. pl. ed. 2.

N. Narbonensis medio, luteus. Park. Parad. t. 81. f. 3.

- 27 *Cypri*. N. (the obovate cyprian white) scapo gracili, sub4-flora: corollae lacinia obovato mucronatis subimbricatis semireflexis et varie subflexulis, corona cupulari, lutea truncata sesquiduplo longioribus.

H. Cypri. Nob. in Phil. Mag. Mart. 1831. Sweet Brit. Flower Garden, t. 92. series 2.

β semiplena. Park. Parad. 85. f. 24, sed minime variantea.

γ plena. N. orientalis var. β. plen. Bot. mag. t. 1011.

Obs. I have seen plants this season at Messrs. Allen and Rogers' Nursery, in the King's-Road, Five Fields, so finely grown, and with very nearly as many flowers as the fine figure above cited, of this most favourite and fragrant plant.

- 28 *lacticolor*. H. (milk-coloured grecian) sub7-flora: corollae lacinia lacteis (tubo respectu) horizontalibus planis ovatis valde imbricatis, corona recta perlutea cupulari lobulatim crenata subplicata subrugulosa sesquiduplo longioribus; foliis glaucis planis.

N. Tazzetta Fl. Græc. t. 308.

A specimen of this was communicated by my very intelligent friend Mr. Penny, foreman to the fine nursery of Messrs. Young, at Epsom, the middle of last April.

***** **CURTIFLORÆ**, scapi multiflori teretiusculi sæpe plus minus fistulosi. *Folia* lata plana lorata plus minus glauca. *Corollae* lacinia sæpius æqualibus et latioribus quam cæteris, et inde brevioribus, seu quasi curtis; semper alba. *Corona* lutea, rarius subaurantis æsequi vel rarius duplo pluvæ longioribus. Medio-luteæ, Hortulanorum.

- 29 *cerina*. H. (large waxen cupped) sub4-flora; corona crateriformi præampia subincrassata truncata integra luteo-cerina, lacinia (corollae,) albis ovatis basi imbricatis duplo brevioribus. *Narciss. Revis. p. 320.*

- 30 *stulosa*. H. (the pipe stalked) sub9-flora: corollae lacinia albis subreflexo-incurvis ovatis æqualibus valde imbrica-

tis, corona recta inflata subintegra lutea, fere duplo brevioribus. *Narc. Revis. p. 142.*

- 31 *patula*. H. (lesser, patulous) foliis glaucescentibus subcanaliculatis patulis scapo subcylindrico 2-6-floro, corona cyathiformi subintegerrima aurea petalis niveis alterne latioribus dimidio brevior. *Schult. syst. v. 7. p. 977. N. patulus. Loisel. journ. d. 1809. 2. p. 276. Narc. p. 625. Not. p. 52. et p. 159. Flor. gall. ed. 2. 1. p. 235.*

Vidi, sed non examinavi. H. *tazzetta* supra duplo minor, et precedentis affinior.

Obs. I think there are many varieties of this plant in gardens, and that one of them, whose flowers have the (perhaps unique) quality of dyeing off with tints of dull or dirty purple colour, have been found apparently wild in two different counties of England; and I have seen plants from both, growing in the rich Nursery at Epsom. If distinct, it may be called *rubescens*.

- 32 *brevisflora*. H. (the short round flowered) sub4 flora: corollae laciniiis æqualibus albis orbicularibus imbricatisimis; corona lutea integra subduplo brevioribus.

Obs. Dubio sine, nova species, corolla laciniiis omnium rotundioribus; foliis loratis et in nostro exemplari, solum 6-lineas latis. *Descriptio* e sicco hortensæ specimenis solum.

- 33 *auranticorona*. H. (the orange-crowned white) sub9 flora: corollae laciniiis niveis ovatis variè flexis imbricatis, corona cupulari acetabuliformi subrepandula lætè aurantia plus duplo longioribus.

Cum priore et sequente fortè accedit ad H. *astulesam*, sed distincta corollâ majore, etiamque coronæ colore.

Communicavit cum sequente; fuit Aprilis A.D. 1831. Amicus Dom. Penny.

- 34 *crispicorona*. H. (the curly-crown) sub-11-flora: Corollæ rotularia, laciniiis albis rotundo-ovatis subrugosulo-flexulis imbricatisimis; corona aurantio-lutea cupulari campanulata plicata, (ore præcrispo) laciniiis fere duplo brevior.

Obs. Corollæ, laciniiis, tubo respectu, horizontalibus variè incurvulis et quasi ruguloso-flexulis. Coronæ ore indefinitè 6-lobulato crispo, lobulis *Philegynum* modo imbricantibus. Folia ensiformi-lorata plana glauca obtusa scapum florendi tempore æquantia.

Obs. Forsan hujus sectionis tres ultimæ species, melius associarentur inter sect. *Rotulares*, supra.

***** CITROCORONÆ, 5-20-floræ.
Corollæ laciniiis albis minus abbreviatis quam in sectione priore, coronis subcupularibus primò citrinis, denique albicantibus albivæ.

- 35 *floribunda*. H. (the Nocegay) sub16 flora corollæ magnæ, laciniiis rotundo-ovatis subreflexo-incurvulis albis, corona ampla citrina suberecta integra 3-4 plo longioribus. *Narc. Revis. p. 141.* The Grand Monarque of Gardeners, of which I have seen many minor Dutch varieties.

- 36 *citrina*. H. (the common Citroniere) sub-10-flora: corollæ laciniiis albis rotundo-ovatis, corona citrina subpatula irregulariter sæpe fissa subtriplo longioribus. *Narcis. Revis. p. 141.* *Narcissus orientalis* γ. *Gawler in Bot. Mag. 946.*

Obs. Priori affinis, at differt structura acapi striati teretiusculi, foliorumque.

- 37 *decora*. H. (the neat lemon cupped) corollæ laciniiis obovatis niveis, corona pallidè citrina cupulari (ore, repandulo) duplo longioribus.

Obs. Folia ensiformi-lorata mediocria subglaucescentia. Scapus anceps; striis elevatis. Corollæ concinnæ, mucronulata, ut in plurimis.

Obs. Flowered finely in the splendid Nursery of Mr. Colvill, in the King's-Road, Chelsea, in the end of April last, in the open ground, along with the next but one; and to him I am greatly obliged for a root in bloom.

- 38 *polyantha*. H. (the many-flowered pale cup) foliis planiusculis virescentibus, scapo subcylindrico, ancipiti, 8-20 floro, nectario cyathiformi, subintegerrimo, petalis ovatis, alternis latioribus, subtriplo brevior; floribus albis. *Narcissus polyanthos. Loisel. Schult. syst. 7. p. 973. N. orient. totus albus major. Hort Eyst. ord. 2. fol. 11. f. 1. N. orientalis major polyanthus totus albus. Moris. sect. 4. tab. 8. f. 2.*

Obs. Folia viridia. Nectarium pallidissime flavum serius omnino album. *Loisel. l. c.* Vidi 16-flores solum, in una *spatha*, laciniiis ovatis acutis.

- 39 *sulcicaulis*. H. (many pale flowered, furrowed) 8-16 flora: corollæ laciniiis ellipticis mucronato-acutis ad oras recurvis, subimbricatis niveis, corona cupulari tenuiter crenulata citrina 3-plo longioribus.

Obs. Folia mediocria ensiformi-lorata subglaucescentia. Scapus foliis concolor compressus, utraque longitudinaliter obtusè sed profundè sulcatus, angulis obtusissimis. Communicat amicus Dom. Sweet.

- 40 *Lana*. H. (the pale few-flowered) 3-5 flora corollæ laciniiis nivels imbricatis, corona primo pallidissimè citrina. mox alba, sub3-plo longioribus : foliis ensiformi-loratis viridibus planis.

Obs. Folia æriora sæpe 8-lineas lata plana, sæpe superne debilitèr flexuoso-recurva.

***** ANCIPITES : Italici : *Scapis* omnium præcocioribus, valde compressis gracilibus, acutè ancipitibus. Genus proprium ?

- † *Sulphureæ* : 3-9-floræ, corollæ laciniiis primo sulphureis seu rarius flavescens demum plus minus albicantibus, sæpius ovato-lanceolato-ve-acuminatis, fere elongatis ; vel simpliciter lanceolatis.

- 41 *chrysantha*. H. (the golden) subtriflora : corollæ laciniiis saturatissimè sulphureis lanceolatis distinctis, (tubo respectu) flexuose horizontalibus, coronâ cupulari obsoletè crenato-repandulâ aurantiâ, 4-plo plusve longioribus.

N. *chrysanthus*. Redout. Lill. vol. 1. Schult. syst. v. 7. p. 971.

Habitat, ex structurâ, in Italia. Floret i. Apr. sub dio.

H. *tenuiflora*. Nob. *affinis*. Folia lorata plana glauca ordinaria, at uti planta, inter minores. *Scapus* compressus gracilis acutè anceps. *Pedunculi* triangulares fere ut in omnibus. Flores horizontalitèr subnantes. Corollæ lacinie tubo breviores sub 9-lineas longæ. Corona rectissima saturatissimè lutea potiusve sabaurantia.

Obs. I have seen in Messrs. Young's fine Nursery, at Epsom, 2 semi-double (plenicoronæ) varieties of a plant, extremely near to this, but rather paler; and two more as large again, but similar. Few points amongst monocotyledonous plants are more difficult, than to ascertain the true parents of double varieties by study only. They may become single, and may again become double. They are still varieties from seed in every stage.

- 42 *italica*. H. (the large early sulphur) sub10-flora corollæ laciniiis elliptico-lanceolatis subflexuosis basi imbricantibus primò sulphureis, corona citrina subquadruplo longioribus : stylo coronam crenato-erosam patulo-cupularem æquanti.

N. *italicus*. Bot. Mag. 1188.

Obs. Spatha inter alias magna viridimembranacea, fere foliacea.

- 43 *præcox*. N. (the middle early sulphur) corollæ laciniiis lanceolato-acuminatis tortuoso-undatis subdistinctis primo sulphureis, corona recta citrina sub-

campanulata plicata 6-partita quadruplo longioribus.

N. *præcox*. Tenore Fl. Neap. p. 146. t. 27.

- 44 *straminea*. H. (the lesser sulphur petaled) corollæ laciniiis lanceolatis cum mucronulo sulphureis mox stramineo-albicantibus sub-distinctis, tubo sæpe brevioribus, corona cupulari citrina plicatim eroso-crenata, sub4-plo longioribus.

Obs. Priore simillima, sed in latiori-bus laciniiis discrepat.

Ex Caldario cum sequente, communicavit amicus Dom. R. Sweet.

- 45 *subalbida*. H. (the straw-coloured) sub4-flora : corollæ laciniiis anguste lanceolatis lacteis basi subimbricantibus, corona cyathiformi straminea plicatim eroso-crenulata, sub4-plo longioribus. N. *subalbidus*. Loisel. Schult. syst. v. 7. p. 967.

Obs. Plusquam pedalis omni parte gracilis. Folia 7 lineas lata viridia, uti *scapus* apicem versus altè striatus.

- 46 *tenuiflora*. H. (the slender-petalled sulphur) sub4-flora : corollæ laciniiis sordidè albis lanceolatis stellatis distinctis, corona minuta lutea sublacera incurvo-erecta 5-plo longioribus. *Philos. Mag. for 1830*. p. 133. Floret sub dio i. Martii. An precedentis varietas ?

†† *Niveæflora*, Floribus toto nivels graciliter elegantissimis suaveolentibus.

- 47 *papyratia*. H. (the great paper white) sub11-flora : corollæ niveæ laciniiis subovato-lanceolatis imbricatis, coronâ cupulata subplicatim erosulâ sub4-plo longioribus.

N. *papyratus*. Bot. Mag. 947. N. niveus. Loisel. Schult. syst. veg. v. 7. p. 975.

- 48 *dubia*. H. (the lesser white) sub9-flora : petalis ovatis nectario campanulato integerrimo triplo brevioribus.

N. *dubius*. Gouan. Illustr. p. 22.

Willd. sp. pl. 2. p. 40. N. totus alb. medius polyanthus, &c. Hort. Eyst. ord. 3. fol. 2. f. 2. Tazettæ duplo humilior. Petala ovata uniformia, nectario campanulata integerrimo alba, triplo longiora. Willd. l. c.

Obs. Dodrantalis plusve, scapo ancipiti, flores toto albos humilior. Init. Mai. floret.

An vere hujus sectionis ?

- 49 *unicolor*. H. (the winter flowering) multiflora : petalis oblongis, nectario campanulato plicato lacero petalis sextuplo brevior, scapo foliis planis ligulatis longiore. Tenore (sub Narcisso) Flora Neap. v. 1. p. 144. t. 26. Schult. syst. v. 7. p. 976.

Floret in loco natali, Novembro in Decembrem.

50 *Jasminæa*. H. (the Jasmine-like) corollæ elegantissimæ, lacinii lanceolatis distinctis, corona erosula 5-plo longioribus. *Phil. Mag. for 1830, p. 133.*

†† *Serotina*. Folia synanthia.

51 *eleæans*. H. (the slender Jasmine) 1-7 flora: pedunculis gracillimis elongatis, corollæ albæ gracilis elegantissimæ, lacinii lineari-lanceolatis acuminatis albis, corona minuta integra multoties longioribus.

Narcissus serotinus. Desfontain. Flor. Atlant. v. 1. p. 283. tab. 82.

Habitat in Algeriæ arvis, secundum. Desf. l. c.

Obs. Hæc planta omnium forte elegantissima, sed non est, *N. serotina* Linnæi, neque ejus Herbarii, quandoquidem *lævis* non trinodosus *scapus*.

52 *obsoleta*. H. (the white leafy autumnal) 2-florus: corollæ laciniiis albis ovato-oblongis acutis imbricantibus, corona obsoleta lutea multoties longioribus. *Narcissus autumnalis*, medio obsoletus, the white autumn Daffodill with a sulken crown. *Park. Par. tab. 89. fig. 4. p. 90. No. 1.*

Obs. Folia 2-3 valde angustata et fere Juncina, sed basi paulo latiora, et apice magis acuta. Non vidi, sed Parkinsoni figura etc. solum descripsi.

††† *Nudicaules*: *scapo*, florendi tempore apophyllo nodoso vel articulado.

53 *serotina*. H. (the knotty stalked autumnal) uniflorus: scapo digitali nodoso, corollæ albæ laciniiis patentis stellatis oblongo-ovatis acutis, corona lutea sexdentata 7-plo longioribus.—*Obs.* foliis post anthesin progredientibus fere ut in scilla autumnali.

N. serotinus. Linn. sp. pl. ed. 3. p. 417, et ejus Herbarii. N. autumnalis minor albus. Park. Par. tab. 89. f. 3.

An verè hujus generis, scapum anomalum nodosum.

54 *obliterata*. H. (the obliterated cup) sub8-flora: nectario oblitterato foliis lineari-lanceolatis.

N. oblitteratus. Schult. syst. v. 7. p. 981. Habitat in Magadore.

Obs. *Scapus* pedalis. Folia scapo breviora $\frac{1}{2}$ poll. circiter lata obtusiuscula. Flores subumbellati erecti pedicellati. *Spatha* floribus parum brevior. *Schult. l. c. De Schlechtend. Fil.*

Obs. An hujus Generis? Ab ultima, penultima, quoque antepenultima satis differt foliorum latitudine solum. Forte *H. Jasminæa* supra magis concordat.

An *N. Broussonetii. Lagasca, Nov. Gen. et spec. p. 13? "ob folia lineari-lanceolata."*

HELENA. (Hermionis formosissima mater.)

Spatha 1 3-flora. Corollæ flavæ, ochroleucæ s. albæ, laciniiis in stellam expansis, tubo multo brevioribus. *Tubus* grossus valde compressus, angulis obtusis, fere ut in *Narcissi*, at longior, magisque compressus. *Filamenta* omnia fere omnino toto tubo adnata. *Anthere* demum subspiraliter tortæ, tres superne parte tubi inclusæ; tres tubum semisuperantes. *Stylus* tubum æquans, stigmatibus tribus rotularibus. *Ovarium* 3-loculare, 3-valve: *valvis* biseptiferis: *Ovula* numerosæ, bifariam insertæ, obovato-spathulatæ. Cætera ut in *Narcisso*. Character e *L. gracili* sumptus. *Habitus* in omnibus gracilior multo quam in ultimo, vel sequenti genere. Folia linearia fere plana, sublineam lata, et viridia seu glauca.

* *Flavissimi*. Foliis viridibus.

1 *gracilis*. H. (the slender yellow) 1-3 flora: scapo gracillimo compresso supernè ancipito lævi, *spatha* pedunculo brevior infernè integra: corollæ flavissimæ, laciniiis ovato-acutis valde imbricatis horizontalibus, corona saturatiore patula acetabuliformi ore plicatim eros crenulato marcescente, 5-6-plo longioribus.

N. gracilis. Bot. reg. t. 816. Sæct. br. fl. gar. ser. 2. v. 2. ined.

N. lætus. Red. Lill. 428. nec Salisb.

Obs. Malo usque ad medium vel fere in finem floret.

** *Floribus ochroleucis, foliis angustissimis, sed planis nec Juncinis, vel infernè parum convexis, supernè parum concavis, viridibus.*

2 *tenuior*. H. (the slender straw coloured) 1-2 flora: prægracilis: corollæ laciniiis ochroleucis mox albicantibus, corona lutea patellari 3-4-plo longioribus.

Hermione tenuior. Narc. Rev. p. 145. N. tenuior. Curtis in Bot. Mag. 379.

3 *planicorona*. H. (the slender, flat-crowned) corollæ laciniiis ochroleucis, corona lutea deplanata, foliis planis lineam latis. *Obs.* Omnium planifoliarum angustissima folia.

Narcis. minimus Juncifolii flore. Park. Par. 88. No. 4. tab. 89. f. 2.

Amicus Rev. Dom. Ellicomb, fere post florescentiam, *Narcissorum* eximius cultor, April mense, communicavit.

Obs. Priore plus duplo gracilior flore similis, at in corona plana discoidæa sufficienter discrepat.

*** *Dodrantales*: *floribus* albis solitariis corona parva lutea, alio colore, marginata.

4 *purpureo-cincta*. H. (the dwarf purple rimmed) corolla diminuta alba, corona parva lutea, purpureo tenuissimè cincta. *Narcissus minimus* medio purpureus. *Park. Par. 87. No. 3.*

Non vidi, ex l. c. solum enumeravi.

- 5 *croceo-cincta*. H. (the dwarf saffron rimmed) dedrantaia: foliis 4-5 spithameis, corollae parva solitaria alba, corona lutea, margine croceo, radice parva rotunda sub-oblonga tunicis exterioribus nigricantibus.

Narcissus medio croceus tenuifolius.

Park. Par. p. 87. No. 2.

N. medio croceus graminifolius. Rusb.

Elys. t. 61. 5.

Obs. non vidi, et l. c. solum enumeravi. Hæc et ultima (secund. Park. l. c.) in habitu, simulant *N. poeticum*, in fere omnibus, at multoties minoribus.

**** *Floribus omnino albis, foliis glaucis.*

- 6 *pumilus* H. (the dwarf white) uniflorus foliis linearibus (valde glaucis): corollae lacinii ovato-subrotundis (albis), nectario concolore crasse crenato, triplo longioribus, antheris 3, tubo inclusis, 3-exsertis. *Redout. Lill. 409.*

NARCISSUS.

Spatha 1. 3 flora. *Corona* parva patellari, corollae sæpius niveæ lacinii multoties breviora toto crocea seu flava et croceo fere semper cincta. *Filamenta* tubo adnata 3-inferiora cum antheris, parum inclusæ; et 3, etiam inclusæ cum antheris semisextis.

• *Præcociores.*

- 1 *poetorum*. N. (saffron-cupped) corollae lacinii amplissimis cuneato-obovatis planis valde imbricatis niveis, corona sub-patellari (mox subdiscoidea) primo toto crocea, ore plicatissimè crispo saturatione.

Narcissus maximus medio purpureus.

Merian. florileg. t. 144. fig. infer.

Narcissus poetarum.

Crocum pro corpore florem inveniant, foliis medium cingentibus albis. *Ovid.*

Obs. *Corolla* nivea trientata. *Corona* primo omnino pulcherrimè crocea, mox a basi seorsum intensè lutea, demique albicante periente. *Folia* glauca infernè carinata 7 lineas lata apice flaccidè recurva.

Florebat i. Apr. 1831, in Nobili Horto, Hort. Soc. Londini, copiosè et pulcherrimè omnium.

Obs. Non est *Linnæi Narcissus poeticus*, nec *Salisburyi*, neque aliorum *Botanicorum*.

- 2 *ornatus*. N. (the flat crowned saffron rim) corollae lacinii (præcipue exterioribus) subreflexentibus, basi imbricatis; corona matura omnino complanatiæ expansa: foliis erectis perglaucis angustis.

N. poeticus. Salisb. in Hort. Trans.

1. 363, sine ullo caractere. *N. medio purpureo-præcox. Park. Par.*

p. 76. tab. 75. f. 3. N. tripodalis. Salisb. MSS. ex lacinii 3 sæpe semireflexis (tripodum quasi simulantibus, et inde ex errore *N. tripodalis. Schult. syst. v. 7. p. 387.*)

Florebat initio Aprilis cum sequente.

- 3 *angustifolius*. N. (narrow leaved saffron-rim) corollae lacinii horizontalibus spatulato-obovatis distinctis, corona acetabuliformi ore scarioso crenulatissimo internè coccineo, antheris 3 inclusis.

N. angustifolius. Bot. Mag. 193. N. radiiflorus. Salisb. Prod. p. 225. et in Hort. Trans. v. 1. p. 365, excluso synon. Parkinsoni, quod est N. stellaris infra. Narciss. Reviv. p. 140.

Habitat Helvetiæ pratis humidis subalpinis. *Florebat* i. April. Variat.

a. ut supra, foliis angustè loratis glaucis.

β. foliis angustis viridibus. Vidi apud Messrs. Young's, Epsomæ.

γ. foliis glaucis floreque majoribus. Communicavit amicus Johannes Denon, Junior.

•• Medio tempore florecentes.

- 4 *spathulatus*. N. (the lesser saffron rim) corollae minoris, lacinii obtusis seu spathulatis, corona lutea, margine plicato crispo croceo.

In nobili Horto, Hort. Soc. vidi florentem, medio seu fine April. An varietas minor certè præcocior *N. patellaris* infra?

- 5 *albus*. N. (the slightly saffron rimmed) corollae mediocri niveæ, lacinii exterioribus obovatis, interioribus subovatis valde imbricatis, corona patula lutea, margine plicato-crispo subcroceo, mox marcescente albido, multoties longioribus.

N. albus. Mill. Dic. ed. 8. No. 5.

Schult. syst. v. 7. p. 385.

Florebat in Nobili Hort. Hort. Soc. Londini, med. Aprilis, 1831.

- 6 *dianthus*. N. (the two flowered saffron rim) 2-florus: corollae lacinii subovatis niveis flexuosis, (per latera recurva) basi distinctis substellatis, corona acetabuliformi aurantiæ valde plicatim lobata crispa, lobis valde imbricatis plicato repandulis.

Obs. *N. biflorus* infra, similis sed discrepat caule æquipedati, corollae lacinii angustioribus niveis, coronæ aurantiæ et foliis subglaucis carinatis basi, oris inflexis et inde cavo-triangularibus, 8-lineis latis.

Florebat in nobili Horto, Hort. Soc. Lond. medio April, 1831.

- 7 *triflorus*. N. (three flowered) 2-3, rarissimè 4-florus: corollae lacinii niveis ovatis planis, mox semireflexis imbricatis, corona patellari pertusa plicatula.

Florebat cum priore.

Obs. *Folia* fere precedentis sed viri-

dia lorata carinita 5-6 lineas lata acuta. Differt etiam corollæ lacinii non flexuosè stellatis sed planioribus et imbricatis, *corona* lutea nec aurantia.

- 8 *biflorus* N. (the cream-coloured) 1-3 florus: corollæ ochroleucæ mox albidæ, lacinii amplissimis præinæqualibus late ovatis, *corona* patellari lutea, margine marcescente pallido, plicatulatim crenulato.

N. *biflorus*. *Narciss. Revis.* 151. *Bot. Mag.* 197.

Obs. This plant is reputed to be a Mule, because in gardens it bears not even the embryo's of seeds: but as it spreads over whole fields in a wild state in Devonshire, &c. may it not, like the Hautboy Strawberry, have both fertile and barren individuals proper to its species; those now in gardens having arisen from the barren ones?

*** *Seriore* florendi.

- 9 *recurvus*. N. (the drooping leaved saffron rim) uniflorus: foliis semunciam latis perglaucis superne debilitè recurvo-dependentibus scapo humilioribus, corollæ nivæ, lacinii imbricatis late ovatis retusis cum mucrone, lateribus inflexis: *corona* præplicata, ore crenulato croceo. *Narciss. Revis.* p. 151. *Floret* i. Maio, post medium.

Obs. Flores 1 rarissimè 2 in eadem spatha. *Coronæ* margo sublatè croceus demum interne parum albidus, sed minus quam in sequente.

β *gracilior*, foliis scapoque fere duplo angustioribus glaucescentibus minus planis, paucis solum recurvis sed erectis inde scapo sæpius altitudine: *Coronæ* croceo margine sæpe tenuiori.

- 10 *poeticus*. Lin. N. (middle-sized May) foliis

erecto-subincurvantibus glaucis, 4 lineas latis, corollæ lacinii imbricatis lateribus deflexis, *corona* patellari lutea, minutissimè plicatula margine subscarioso circulo albo-gracili, externe coccineo, crenulato; stigmate longitudine staminum interiorum. N. *poeticus*. *Lin. sp. pl. ed. 3. p. et ejus Herbarii. Curtis Bot. Mag.* 198 at the end. *Narciss. Revis.* 150.

β. flor. plen. albo.

γ omnibus antheris exsertis. N. *poeticus*. *Red. Lill. t.* 360.

- 11 *patellaris* N. (the large broad May) corollæ amplissimæ lacinii orbiculato obovatis imbricatisimè nivæ, oris deflexis, *corona* patellari lutea superne alba ore denticulato-crispe croceo; foliis 8 lineas latis, glaucis carinatis. N. *poeticus*. *Eng. Bot. tab.* 275. *Narciss. purpureus maximus. Park. Par.* 75. f. 2.

β flor. pleno albo cum croceo.

Obs. Corollæ lacinii 2, exteriores subsemireflexæ, 3-interiores tubo respectu horizontales.

- 12 *stellaris*. N. (the long petalled saffron rim) corollæ nivæ elongatæ stellaris: lacinii obovato cuneatis mucronatis tortis oris undatis reflexis distinctis, *corona* perlutea patellari, margine plicato crenulato croceo mox intus albedo multoties longioribus, antheris omnibus sub-exsertis.

Narcissus medio purpureus serotinus.

Park. Parad. tab. 76. f. 2.

Communicavit amicis Dom. Anderson, ex Hort. Chels. Initio Maii floribusque post medium.

Obs. corollæ lacinii tubum 3-lineas longiores. *Scapus* gracilis anceps. *Folia* lorata viridia sive aliquantum glaucescentia. *Antheræ* tres paulo exsertæ, tres semixsertæ sed cæteris certe humilioribus.

POSTSCRIPT.

For the liberal presentation both of many Roots and Specimens, without which the foregoing Enumeration of Narcissæan Plants could not have been completed, I beg leave very much to thank the following Royal, and Public Gardens, Private Gentlemen, and Nurserymen.

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The Horticultural Garden at Turnham Green.
The Botanic Garden at Bury St. Edmonds.
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Mr. William Pamplin, Lavender Hill Nursery, Wandsworth Road.

In the course of the above Enumeration, will be found all the Species and Varieties contained in the just published Seventh Volume of Schultze's celebrated edition of Linnæus's *Systema Vegetabilium*, and all, as far as practicable, duly appreciated; nearly all the Species and Varieties of the faithful Parkinson, are likewise given; a few from the less accurate *Hortus Esystettensis*; the rare *Campi Elysii* of Rudbeck; Barrellier's *Icones*; the *Florilegium* of Swertius; Trew's *Floræ Imagines*; the *Theatrum Floræ*; Madam Merian's *Icones*; and many other works.

I have carefully preserved Specimens of almost the whole; and they will be hereafter my Vouchers for the truth.

The Genera of this group of Plants here, and heretofore proposed by me, are very natural; and though many years have elapsed without their having been adopted by others; so much the better it is, for my future reputation; for adopted they must be; and then will be proved, my having seen *just so far, before* my competitors.

On the other hand, half a century's experience constantly amongst the living Plants, might be expected to have effected *more*. But, "*non omnia, possumus omnes.*"

The characters I have given throughout, are *short*, but they are the result of *experience*, and I know their *validity*.

" His L.B. utere mecum; dum alii plura melioraque sistant."

A. H. HAWORTH.

Chelsea, May 15, 1831.

Tilling, Printer, Chelsea.

